8831/97

P.W.
~~Revenue~~ (1897) Department.

8830
CURRENT No. ~~6526~~

Rd. 6-8-97

From the Board of Revenue
Rev. Sett. &c

~~Order~~ Govt. Mis. no. 4040 d/ 4th Aug. 97.

Transferred to the P.W. Dept with copy of telegram to the Secretary of State dated 21st July 1897.

Stokes
Ag. Secy. to Govt.

No. 5976 mis.

Dated 31st ~~July~~ 1897
Received ~~2-8-97~~
Registered 2-9-97
Enclosures 4-6
Spare copies

To
the P.W. Department

SUBJECT.

Submitting to Governme indent in quadruplicate for s breaking steel hammers an explaining the present need for the indent.

Recd 4/8/97

of 68

Public Works (1897) Department.

Print form

Please send 2 proofs

G.O., No. ~~2439~~ 2533 W

DATED ~~3 September 1897~~ 13 Sept '97

[Despatch Abstract.]

Famine tools: Passing orders in regard to the supply of — and the responsibility of the P.W.D. in the matter of fixing a suitable reserve of tools to be stored at specified Centres.

J.C.
3/9

13/9

P.W. 23
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Indexed. 9/9

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

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GENERAL.
ACCOUNT.

Government (1897) of Madras.

PUBLIC WORKS.

Recd. } 1897. *Enclosures*
Regd. *Spare copies*

G.O., No. 2533 W., 13th September 1897.

SEPTEMBER.

Famine Tools

Passing orders in regard to the supply of — and the responsibility of the Public Works Department in the matter of fixing a suitable reserve of tools to be stored at specified centres.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

Read—the following papers:—

Office-note to the Secretary to Government, Revenue Department, dated 22nd May 1897, No. 311 D.
G.O., No. 3902, Revenue, dated 27th July 1897.
Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), Mis. No. 5784, dated 26th July 1897.
Endorsement thereon in the Revenue Department, dated 29th July 1897, R. No. 1441.
Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), Mis. No. 5962, dated 30th July 1897.
Endorsement thereon in the Revenue Department, dated 3rd August 1897, R. No. 1470.
Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), Mis. No. 5976, dated 31st July 1897.
Endorsement thereon in the Revenue Department, dated 4th August 1897, No. 4040.
Telegram from the Secretary of State, dated 31st July 1897.
Endorsement thereon in the Revenue Department, dated 5th August 1897, Mis. No. 4080.

Note by the Chief Engineer, Public Works Department.

The General Superintendent, Public Works Workshops, reports that the indents from the famine districts have all been complied with and that he has received information that the chilled cast-iron hammers made at the shops are satisfactory.

2. I some time ago wired to the Superintending Engineer, III Circle, for a report on these hammers and expect a reply shortly.

3. The Superintendent, Public Works Workshops, also reports that he has 3,000 hammers in stock and that he can turn out daily 1,000 chilled cast-iron hammers—and on emergency 3,000—and 500 steel-faced hammers. Taking into consideration that there are no more indents from the famine districts to be complied with, that 90,000 hammers have been indented for on the Secretary of State and 50,000 ordered from the Madras Railway Company, I do not think it is necessary to enter into a contract with C. A. R. Aiyar of Trichinopoly. It must further be remembered that C. A. R. Aiyar have 20,000 hammers ready which can be purchased at once if thought necessary, and also that as famine seems to be dying out in other parts of India and tools can probably be obtained from those parts. I have, however, examined the sample hammers received from C. A. R. Aiyar and am of opinion that, if it is decided to enter into a contract with them, it should be for the steel-faced hammers at 5½ annas per lb.

4. I think there is little doubt but that the report of the Superintending Engineer, III Circle, on the chilled cast-iron hammers will be favourable, and as these can be turned out at the rate of 3,000 a day (at a cost of only one anna per lb.), it will be possible for the shops to manufacture about 240,000 of these hammers besides 40,000 wrought iron ones by the 15th November.

5. In my note, dated 29th June 1897, No. 658 D., I gave the number of stone-breaking hammers I considered necessary in the event of the famine becoming wide-spread at—691,000; the number in stock and serviceable is 288,794; so the balance required is 402,206. The number indented for on Secretary of State is 90,000; ordered from Railway Company 50,000—total 140,000.

So the balance required is 402,206 — 140,000 or 262,206, and these can be made on emergency in the workshops by 15th November: but it is almost impossible that such a large number will be required by such an early date. Should hammers be required on emergency, the following numbers can be made locally:—

		Daily.
Public Works Workshops.		3,000 chilled cast iron. 500 steel-faced hammers.
Madras Railway	about	700
Messrs. C. A. R. Aiyar & Co.	„	130
Messrs. Massey & Co.		100
		4,430

6. It is worth considering whether it is now necessary to submit the indent for 90,000 hammers to the Secretary of State. When I made the proposal, the numbers on relief works were increasing rapidly and the demand for hammers was greater than could be met; but it is now six weeks since then, and circumstances have altered; but on this point the Revenue Department is in a better position to give an opinion with reference to the state of the season up to date than I am: but I think the Superintendent, Public Works Workshops, should be ordered to make 1,000 chilled cast-iron hammers and 500 steel-faced hammers daily till further order, or till the full number of hammers in stock in the Presidency is 691,000. The number of chilled cast-iron hammers turned out can be increased to 3,000 daily at any time; but as this interferes with the ordinary work of the shops, I do not think more than 1,000 daily should be ordered at present.

7. I request definite instructions as to whether the Revenue or the Public Works Department is to make arrangements for the supply of tools. At present the work seems to be being done by both; for instance, the Revenue Department have called on Collectors to submit their requirements as regards tools, while I have called on Superintending Engineers for the same information, and this is likely to cause confusion.

8. If the work is to be done by the Board of Revenue, it will be advisable for me to hand over to it the information I have obtained from the famine officers regarding the most suitable description and weight of the several tools now used on famine works.

9. Since writing this note, the telegram regarding the supply of hammers received from the Secretary of State has been forwarded to me, and with reference to it I would suggest that a reply be sent requesting that such hammers as have been made should be forwarded at once, but that the balance of the indent need not be complied with at present. From the Secretary of State's telegram it seems that no reliance can be placed on getting tools from England on emergency: for apparently it takes longer to get 90,000 hammers made through the agency of the India Office than the same number could be made by the Madras Railway Company. I was under the impression that 90,000 hammers could be obtained in England in a few weeks, but this does not seem to be the case. If the south-west monsoon had failed, the tools from the Secretary of State would have been received so late as to be of little use.

(Signed) D. McNEIL CAMPB[illegible]L, Col., R.E.,
[illegible]hi[illegible] Engineer.

9th August 1897.

G.O., No. 604, Revenue, dated 21st July 1897.

Read—the following letter from the Hon'ble Colonel D. McNEIL CAMPBELL, R.E., Chief Engineer and Secretary to Government, Public Works Department, and H. M. WINTERBOTHAM, Esq., I.C.S., 3rd Member, Board of Revenue, to the Secretary to Government, Revenue Department, dated Madras, 5th July 1897, No. K.:—

In continuation of our letter I, dated June 24th, 1897, we have the honour to submit herewith a separate note by each of us, embodying the general remarks which each wishes to make in connection with the eight joint reports which we have already submitted.

On the completion of our tour to the eight districts, arrears of work urgently required our immediate return to our respective head-quarters, and we thought it unnecessary to spend the time and incur the delay which the composition of a joint report would have involved.

Enclosure.

Note by H. M. WINTERBOTHAM, Esq., I.C.S., Third Member of the Board of Revenue, dated 3rd July 1897.

With reference to the eight reports which we have submitted on the districts of Coimbatore, Salem, North Arcot, Nellore, Kistna, Chingleput, South Arcot and Trichinopoly, the following points seem to call for further remark or explanation.

1. *Establishments.*—For Coimbatore (the first district we visited) we recommended the immediate entertainment of 8 temporary surveyors with 3 lascars each, for the preparation of estimates (suitable for the employment of relief workers) for the repair of tanks and channels in charge of the Department of Public Works.

We have not made a similar recommendation for the other districts, though the transfer of hands for famine duty has seriously weakened the ordinary staff in all of them, and though the Public Works Department contributions to the famine programmes are everywhere less than they should be. This inconsistency is due to our sense *first* of the impossibility of finding the requisite number of qualified temporary hands, and *second* of the waste of money which will result, should elaborate preparations for an extended drought happily prove unnecessary.

When the famine ceases, retrenchment is likely to be the order of the day. The works would not generally be such as could be classed as emergent, and the estimates would not keep serviceable for an indefinite time.

2. When, however, part (often the greater part) of the ordinary staff in a district has been moved away for famine duty, I cannot see any justification for not filling up the vacancies with temporary hands, short of the all sufficient one that no qualified men can be got. I am not satisfied that enquiry for competent hands has been exhaustive, and I think that orders should issue to all Executive Engineers to bring their district staff up to the sanctioned strength so far as fit temporary hands can be found. Even if the temporary hands were not at first qualified, they would at least be in training, and on the way to become so. The difficulty of obtaining qualified extra hands is, of course, due to the fact that the demand for them only occurs at long intervals for short periods.

Men were advertised for but only 23 suitable candidates could be got and they have been appointed temporarily to take place of subordinates transferred to famine work.
D.C.

Considering what an enormous demand for extra hands might arise in the near feature, it would seem good policy to let the existing demand make itself fully known. So far as the demand operated to induce students to set to work to qualify as overseers, its effect must be to that extent beneficial, and if no fit hands are forthcoming, Government will at least learn the true extent of its weakness.

3. The weakness, chiefly numerical, of our district organization in all departments, its inability to meet any sudden extraordinary strain, and the difficulty of rapidly strengthening it, are the most discomforting features of the situation. As soon as the village officers are set to work to prepare against future contingencies under Chapter VI of the Famine Code, their other duties are perforce let slide, and it is useless to ask concerning the crops and cultivation. There is a similar dislocation of ordinary work in every grade, up to the sorely pressed Collector, who is too often the solitary European Revenue Official in the district, on whose narrow shoulders rests the weight of the whole machine. I have no remedy to suggest. Financial exigencies compel us to keep our establishments down at a strength which is just sufficient in times of prosperity, and in times of adversity we cannot escape the penalty.

The same remarks apply to the Public Works Department.
D.C.

4. *Famine tools.*—Messrs. Oakes & Co. have about 950 mamooties and 1,000 large hammers in stock. They cannot, they say, make hammers, because no suitable steel can be procured in the local market. Messrs. Massey & Co. have about 3,000 mamooties in stock, at prices varying from Rs. 13 to Rs. 30 per dozen, and 900 pick-axes at Rs. 20 to Rs. 21-8-0 per dozen. They could turn o[illegible]teel hammers weighing 2 lb. and 3 lb. at the rate of 100 per day, price Rs. 650

per 1,000 for 2 lb. hammers, and Rs. 950 for 3 lb. There do not appear to be any other local Firms, who deal in tools, and who could be entrusted with a large contract. The Agent of the Madras Railway expressed himself able and willing to manufacture hammers in large numbers at the railway workshops. I have asked him and the Chief Engineer of the South Indian Railway to state what number they could turn out per diem, and at what price. Colonel Campbell has particulars of the stock, and the productive capacity of the Public Works Department Workshops. The Superintendent is put to his wits' end to meet the enormous demand. Some of the hammers now being supplied are mere lengths of bar-iron with a hole in the middle. They are fit for children's use, but the iron is so soft that they will rapidly become unserviceable. Some hammers of chilled cast-iron, which he has made as an experiment, are admirably hard and cheap, but are brittle and liable to fracture if used sideways with great force. It is expedient that these should be subjected to a fair trial on a sufficiently large scale. When once a sufficient number of moulds are constructed, these hammers could be turned out rapidly at a small fraction of the cost of steel hammers. The danger of famine will be ever with us; and the population to be dealt with tends rapidly to increase. Government is bound to maintain a large stock of tools, and in the end I believe, it will be cheapest to provide steel hammers. The comparatively large reserves, which, we have advised, should be provided for the eight districts, would after all not suffice for more than 3 per cent. of the population. I certainly think that 50,000 2 lb. hammers and 50,000 3 lb. hammers of steel should be obtained from England at once.

Information is given in my note.
D.C.

5. A report should be called for as to the patterns of tools, which have been found in actual use most serviceable for famine labour. We were informed at Guntakal that even the women preferred heavy 4 lb. hammers. I think a 2 lb. hammer most suitable for women and children, and a 3 lb. hammer for men; but where hard rock, in large fragments, has to be broken, a proportion of 4 lb. hammers would be required.

I have already called for this report.
D.C.

6. Nearly all the mamooties in stock are of the Madras pattern, intended for a short handle parallel to the blade. The Wudders prefer this muster, but for relief workers not accustomed to their use, I should think the English form of hoe (which is the West Coast and the Bengal pattern) much better. I think the weight should not exceed 5 and 6 lb.

7. *Instruments for clearing prickly-pear.*—I do not know that there is any accepted pattern. From personal experience I advocate the following:—

(1) A combined prong and hook, with a four-foot handle of male bamboo.
(2) A double prong something like an English pitch-fork, but with the prongs closer together.
(3) A rake with eight teeth two inches apart. Invaluable for raking up young plants by the roots.

I agree.
D.C.

8. *Relief works.*—It is difficult to make any useful fresh remarks under this head. The subject is discussed in paragraphs 45—54 of Mr. Clogstoun's Report on the Famine of 1891-92. The removal of prickly-pear, which forms so large a part of the famine programme in some districts, cannot be conveniently performed under the rules of Chapter VII of the Famine Code. If undertaken it should be on the contract system. The same remark applies to the repair of small scattered tanks. Petty estimates for clearing out drinking-water ponds are very numerous, but where the ponds contained water, it would generally be too precious to be spared and the work could not be undertaken even on the contract system.

The clearance of silt from tank-beds is (I know not why) an operation which the Public Works Department condemns. In some of our great tanks large bodies of relief-workers might be employed upon it; but the work would be liable to awkward interruption by a sudden fall of rain.

In zemindaris there is really no work but road-work available. One seems driven to Mr. Clogstoun's conclusion that "Work on roads will have to be more and more resorted to to give employment to famine labour, even if the work should only be useful as forming a test of the necessity of relief."

9. So far as anxious recent study of the Famine Code can acquaint a man with the proper methods of relief administration, I think we may say that we found officers of all ranks well prepared. Some of the Deputy Collectors had continued their studies far into the night prior to our arrival, and appeared, Code in hand, prepared at all points for examination.

In some places the District Revenue staff had been diligently employed, in literal obedience to the order of Government, in drawing up village lists showing the name, caste, sex and age of the halt, the blind, the deformed, the imbecile, the insane, the deaf-mutes, and of all others who would, in the event of famine, be likely to require gratuitous relief. It may be hoped that the labour will prove to have been thrown away.

10. Since writing the above I have read Colonel Campbell's note. I agree with what he has written on the subject of tools paras. 18 to 24. I would call on all Collectors to report what supply of handles for pick-axes, mamooties and hammers, each is in a position to obtain (*a*) from his Forest Officer, (*b*) from Contractors: at what rate per thousand; and what is the shortest period within which the number quoted (whatever it is) could be made available.

Note by the Hon'ble Colonel D. McNEIL CAMPBELL, R.E., Chief Engineer and Secretary to Government, Public Works Department.

After careful inquiry regarding rainfall, prices and general condition of the districts, I agree with the opinions of the Collectors and the other local officials consulted that in the event of a failure of the south-west monsoon, there will be no distress requiring the assistance of Government except perhaps in some parts of the Nellore, North Arcot and Kistna districts. The parts that may be affected but in which it is not anticipated there will be any acute distress are the Darsi and Podili divisions in Nellore district, the Punganuru zemindary and parts of the Chendragiri taluk in the North Arcot district and the upland taluks of the Kistna; the area and population of these tracts are small and no great strain will be thrown on the resources of Government should it be found necessary to adopt measures of relief. The conclusions arrived at are based mainly on the present conditions of the districts, but all the Collectors point out that it is impossible to foretell what may be the effect of a considerable rise in prices.

2. The subject of prices is a very difficult one to deal with, and it is almost impossible to account for the great variations in different places. It seems not unlikely that if the south-west monsoon fails and it becomes generally known that Government are preparing for a famine, the prices now high will rise higher and a fictitious famine be caused in districts in which there is no scarcity of food, and I am of opinion that it is a matter for careful consideration whether Government intervention is necessary in such cases.

3. By a rise in prices caused by exportation or holding up in districts where there is plenty of stock, the producers make large profits and consequently are in a better position to support their dependants, chiefly the agricultural labourers, than they are in ordinary seasons, but if Government start relief works, it is then the object of these producers and grain merchants to make as many as possible of these dependants (whom in ordinary years they support) go to these works, the result being that they save themselves considerable expense while at the same time nearly all the Government money spent on famine relief goes into their pockets.

4. The people most likely to suffer in the case of a fictitious famine caused by high prices are not of the agricultural classes but professional labourers and those engaged in technical trades, and the result of restricting expenditure on ordinary works is that great distress may be caused amongst these classes. This has been pointed out to me by several of the local engineers who, owing to reduction of establishment caused by men, withdrawn for famine have been obliged to stop works, the result being that the labourers employed are now without means of support, and the prices being high, they must necessarily suffer considerably. I therefore think that, before starting famine relief, it should be carefully ascertained whether the high prices are caused by actual want of food supplies or by exportation and holding up. In the former case, the intervention of Government is necessary, but in the latter case, all that seems advisable is to increase the ordinary Public Works of the district, the rates being raised in proportion to the price of food grain.

5. The subject requires the most careful consideration, for with the present facilities for exporting, it is very probable that an actual failure of crops in one district will be followed by a rise in prices in many others, and if on this occurring Government has to start famine works in each district where the prices are above the scarcity rate, the expense to the State will be very great.

6. I have stated that even should there be a failure of the south-west monsoon, the distress will not be severe, only affecting parts of three districts; but the Engineering establishments of these districts have been so reduced by withdrawals for famine in the I and III Circles that it will be impossible to find the establishment necessary to carry out relief works without stopping nearly all ordinary works which, as I have already pointed out, will cause considerable distress. I would therefore suggest that, as soon as the services of men from the Sappers and Miners, the Salt and other departments have been obtained, 20 of the Public Works Subordinates now on famine works in the Ceded Districts should be posted to the districts in which it may perhaps be necessary to start relief works. I think that 10 to the Kistna and 5 to each of the other two districts—Nellore and North Arcot—will suffice with the help of the Local Fund establishment to carry on all relief works that may be required.

I concur.
H.W.

I think their first task should be to prepare a number of estimates.
H.W.

7. The works in the programmes are ample to meet all distress that may arise before next November: by far the greater portion of the estimates are for raod repairs and I would point out that all these estimates include a large sum for cartage which is not suitable for famine relief unless the lead is under a mile in which case the metal can be carried by coolies. It may be said roughly that ⅓ of the estimates are for cartage and I think this time should be separated in future estimates, otherwise a wrong impression is given of the sum available for famine relief purposes.

Very desirable. In most districts a lump rate, including cartage, is quoted for stacking metal on each mile of road.
H.W.

8. The tools, more specially stone-breaking hammers, are insufficient, as will be shown further on.

9. Though there is no reason to apprehend such a calamity as a failure of the north-east monsoon, still should there be no south-west rains considerable anxiety will be felt, and it will be necessary to be prepared for the worst.

10. In the case of a wide-spread famine, that is, supposing the distress in the I and III Circles to continue and also spread to the eight districts visited the great difficulties to contend with will be, 1st, the provision of the necessary engineering establishment, 2nd, the finding of suitable and useful work on which to employ famine labour. Both these difficulties can be partly met by concentrating labour on a few large works forcing the distressed persons to migrate if necessary. I cannot too strongly urge the necessity of this concentration of labour feeling assured that it will be absolutely impossible, if the famine becomes widespread, to carry on relief works on the system adopted in the Ceded Districts.

11. From the latest information received, the number of coolies employed on relief works in the Ceded Districts was 305,189, and the number of works 117, giving an average of 2,600 coolies on each work. Now supposing 20 per cent. of the population of the districts now affected and also of the eight visited to require relief, the number to be provided for would be 43,50,000 in round figures and if only 2,600 coolies were employed on each work the total number of works would be 1,679 requiring at least 14 Executive Engineers, 43 Assistant Engineers, and 1,679 Upper Subordinates, and the question is where are these to be got from?

12. It is not at all likely that the large proportion of 20 per cent. of the population will ever be employed on relief works at the same time, though it is quite possible that that proportion will be reached if the present system of opening works at the doors of the distressed villages is continued as many not in actual want will resort to them. In the great famine of 1876–77 the maximum proportion of the population relieved was as follows:—

	Per cent.
Bellary	50·99
Kurnool	31·24
Cuddapah	21·86
Anantapur	22·70

In most of the other districts it was below 10 per cent. If it should happen that 20 per cent. of the population has to be employed on relief works for any length of time it will be simply impossible to find any useful work for such a large number of persons and the expenditure on famine will then be practically gratuitous relief, work whether useful or not being exacted as a test of distress.

13. I have strongly advocated the concentration of labour on large works and it remains for me to show how this can be done as far as regards the eight districts visited.

14. The Madras Railway runs through the Chingleput, North Arcot, Salem and Coimbatore districts. The masonry works have all been built to take a double line and I believe the necessary land has been taken up for the purpose, and I would suggest that in the event of a wide-spread famine, the line be doubled from Arkónam to Méttupálaiyam (Madras to Arkónam already doubled). The earthwork for this and the preparation of ballast would occupy a very large number of persons for a considerable period, and as there is no doubt that this line will have to be doubled eventually though it may not be required for some years to come the money would not be wasted.

15. This work would afford relief to three districts, *viz.*, North Arcot, Salem and Coimbatore and might be supplemented by the following works:—

North Arcot.

1. Clearing silt from Kaveripakkam tank bed.
2. Clearing Kaveripakkam tank supply channel.
3. Some of the largest road works.

Salem.

Some of the largest road works.

Coimbatore.

1. Bhavâni Reservoir Project.
2. Extension Kalingarayan Channel.
3. Some of the largest road works.

16. In the remaining districts, the following are the only works of any magnitude I can suggest:—

Kistna District.

1. Kistna River embankments.
2. Some of the larger roads.

Nellore District.

1. Supply channel from the Pennair River above Sangam to Nellore.
2. Moldevi drain.
3. Clearing silt from the Nellore tank.
4. Some of the larger roads.

Chingleput District.

1. Widening railway lines from Madras to Chingleput.
2. Some of the larger roads.

South Arcot District.

1. Extension of the Buckingham Canal.
2. Coleroon flood banks.
3. Some of the largest roads.

Trichinopoly District.

1. Some of the largest roads.
2. Breaking metal at Central quarry. But the works mentioned though sufficient to give employment to all who will require relief for many months even in the event of a failure of the north-east monsoon following that of the south-west will not be enough to supply 20 per cent. of the population for any considerable period, and the only other work that I can suggest is the preparation of enormous quantities of road metal at a few central quarries near railway lines in each district. Since writing the above I have had a conversation with the Chief Engineer, South Indian Railway, and he says a large amount of famine labour might be usefully employed in breaking metal for ballast along all the South Indian lines and that it would be paid for at the rates now in force.

17. If the works could be concentrated as suggested, the amount of supervision required would not be very great, and probably 8 Executive Engineers, 16 Assistant Engineers and 100 Upper Subordinates would suffice for the 8 districts visited; but the numbers now employed on supervising works in the I and III Circles will have to be increased as the system of small works in force there cannot well be altered now, so that the total Engineering Establishment necessary to cope with a widespread famine would approximately be—

14 Executive Engineers.
36 Assistant Engineers.
250 Upper Subordinates.

18. The necessity, therefore, of having a list submitted of officers and subordinates in other departments and also of military men available is apparent, as the Public Works Department cannot provide such a large amount of supervision.

Tools.

19. The famine tools now in the Presidency are altogether inadequate in the event of a severe and widespread famine; these numbers were laid down by the Board of Revenue in its Resolution, No. 6144 M., dated 25th October 1893, and embodied in G.O., No. 3116 W., dated 2nd December 1893.

20. The number, it is suggested, should be maintained and which is based on the moderate computation that if 10 per cent. of the population are employed on relief works, 1 person out of every 3 will require a tool, is as follows:—

Districts.	Stone-breaking hammers.	Mamooties.	Pick-axes	Rammers.	Crowbars.	Sledge hammers.	Hand axes.	Bill hooks.	Tools for prickly-pear.
Coimbatore ..	40,000	9,000	5,000	1,000	9,000	500	500	500	500
Salem ..	44,000	9,000	5,000	1,000	9,000	500	500	500	500
South Arcot ..	44,000	9,000	5,000	1,000	9,000	500	500	500	500
North Arcot ..	44,000	9,000	5,000	1,000	9,000	500	500	500	500
Kistna ..	22,000	4,500	2,500	500	4,500	250	250	250	250
Nellore ..	33,000	6,900	3,750	750	6,900	375	375	375	375
Chingleput ..	22,000	4,500	2,500	500	4,500	250	250	250	250
Trichinopoly ..	22,000	4,500	2,500	500	4,500	250	250	250	250
Total ..	2,71,000	56,400	31,250	6,250	56,400	3,125	3,125	3,125	3,125

21. For Ganjám and Vizagapatam the number of tools required might be calculated in the same manner as in the case of the districts visited, but in the case of Bellary, Anantapur, Kurnool and Cuddapah, I think the proportion should be* trebled. As regards the remaining districts no action need be taken at present. The following, therefore, represents the number of tools that I consider necessary enough to maintain in the affected districts.

* This would give total tools in round figures.

	RS.
Bellary	88,000
Kurnool	81,000
Anantapur	72,000
Cuddapah	1,27,000

Districts.	Stone-breaking hammers.	Mamooties.	Pick-axes.	Rammers.	Crowbars	Sledge hammers.	Hand-axes.	Bill hooks.	Prickly-pear tools.
Bellary ..	55,000	10,000	6,000	5,000	10,000	500	500	500	500
Kurnool ..	50,000	10,000	5,000	5,000	9,500	500	500	500	500
Anantapur ..	45,000	8,000	5,000	4,000	8,000	500	500	500	500
Cuddapah ..	80,000	15,000	5,000	10,000	15,000	500	500	500	500
Ganjám ..	35,000	8,000	8,000	7,000	8,000	500	500	500	500
Vizagapatam ..	55,000	15,000	5,000	6,000	10,000	500	500	500	500
Total ..	320,000	66,000	29,000	37,000	60,500	3,000	3,000	3,000	3,000

22. In addition I would propose that the following stock of tools of various descriptions be kept in the Public Works Stores to provide for wear and tear and losses:—

Stone-breaking hammers ...	100,000	Hand-axes	1,000
Mamooties	50,000	Bill hooks	1,000
Pick-axes	30,000	Prickly-pear tools	1,000
Rammers	30,000	Galvanised iron chains ...	28
Crowbars	50,000	Jumpers	1,000
Sledge hammers	5,000	Wooden cash chests	300

23. The following shows the total number of tools I consider necessary:—

Hammers	691,000	Hand-axes	7,125
Mamooties	172,400	Bill hooks	7,125
Pick-axes	90,250	Prickly-pear tools	7,125
Rammers	73,250	Iron chains	28
Crowbars	166,900	Wooden cash chests	300
Sledge hammers	11,125	Jumpers	1,000

24. The exact number of serviceable tools now in stock cannot be ascertained till the special returns called for from the Executive Engineers have been received, but there is no doubt that a very large number will be required to be made or purchased.

25. The numbers given as necessary seem large, but when it is considered that in the eight districts visited it only allows one tool to 1/3 of 10 per cent. of the population and to 1/3 of 30 per cent. in the Ceded districts and makes no allowance for the remaining districts it cannot be considered excessive. The demand for stone-breaking hammers is very great about 300,000 are now in use in the I and III Circles and indents are constantly being received for more. The division of the different description of tools required is of course somewhat arbitrary, as it is impossible to tell exactly how many of each sort will be required till the nature of the work to be done is known, but there is no doubt that a large number of stone-breaking hammers will be required, and I recommend that an urgent indent for 100,000 be at once sent to the Secretary of State. It will perhaps be time enough to get the other tools when the result of the south-west monsoon is known.

I concur.
H. W.

26. There is considerable difficulty in fixing the most suitable weight and description of each sort of tool. The indents from the famine officers vary considerably, for instance, one officer states that he does not want hammers weighing over 1½ lb., another that he wants 3 lb. hammers and so on. In the case of mamooties the same difficulty is felt. There are some in the Public Works Stores weighing from 5 to 14 lb., which latter are far too heavy and most officers say that the weight should not exceed 5 lb. The description of mamooty has also to be decided. I would recommend that the indent on the Secretary of State for hammers should state that they are to be of steel weighing from 1½ to 3 lb. Further inquiries will be made from the famine officers as to the best form and weight of mamooty.

⅓ weighing 1½.
⅓ ,, 2.
⅓ ,, 3.

Handles.

27. Hearing rumours that delay had been caused by the tools being supplied without handles, I wired to the Superintending Engineer to know what were the real facts, and he answered that some slight delay had been caused by tools having to be provided with handles and that he would like handles to be provided in future. I think that issuing tools provided with handles would be a mistake; in the first place the difficulty of carriage would be much increased, and in the next the provision of handles is in itself a relief work. My

own experience is that there is no difficulty in making handles for tools and the opinion of most Engineers I have consulted agrees with mine; of course if a famine officer indents for a large quantity of tools, say, 20,000, hammers, and waits till he receives them to supply handles there must be delay, but I consider with proper management all delay may be avoided. Frequent complaints are made about delay in the supply of baskets which wear out very quickly; baskets cannot be stored for any length of time as they get destroyed by insects very soon; and as their manufacture gives employment to local labour, I do not think it advisable that they should be supplied from outside.

28. The famine tools in the Public Works Workshops, Madras, were inspected by Mr. Winterbotham and myself on the 18th instant in the presence of Mr. Moss, the General Superintendent.

29. The number of tools now in store is as per margin. This is altogether insufficient and the Superintending Engineer is preparing an indent for more. Very large quantities of tools have been issued to the famine districts, the number of stone-breaking hammers and rammers alone amounting to 209,239 and 23,561, respectively. Indents for hammers were received faster than they could be complied with, and the General Superintendent had to have recourse to the local bazaars, and purchased some wrought iron ones at 2 annas 6 pies per lb. These are of most inferior quality and are simply formed by cutting a round bar of iron into small lengths, flattening out their lengths and drilling a hole through the middle. I am of opinion these hammers will not last more than a few weeks. Hammers are also being made in the workshops, both of wrought iron and chilled cast iron, and they can be turned out at the rate of about 2,000 a day. The former are not tipped with steel and are somewhat poor though far superior to those bought in the bazaar; the cost annas 2 and pies 3 per lb.

Pick-axes	4,055
Felling axes	4,368
Crowbars	245
Hand hammers	958
Bill hooks	3,073
Mamooties	16,239
Iron rammers	322
Quarry picks	3,768

30. The chilled cast iron hammers cost 1 anna per lb. and seem excellent and can be turned out faster than any of the other descriptions. The famine officers have been asked by wire to report on these hammers, but no answer has been received. The number of hammers required in the famine districts is so great that the workshops cannot keep pace with the demands. Enquiries have therefore been made from Messrs. Oakes & Co. and Messrs. Massey & Co. Mr. Winterbotham has received an answer from the latter firm but not from the former. Enquiry is also being made as to whether the Railway Workshops at Perambur and Negapatam will undertake to turn out hammers, and, if so, how many.

31. The mamooties in store were of various weights, many of them being as much as 14 lb., which, I consider, useless for famine purposes, 5 or 6 lb. seem as heavy as desirable.

Note by the same Officer, dated 7th July 1897.

Since the despatch of my note, dated 29th June 1897, intimation has been received by Mr. Winterbotham from the Agent and Manager of the Madras Railway Company that stone-breaking hammers can be made at the Railway Workshops, Perambur, for the purpose of famine relief and that they can be turned out at the rate of from 600 to 800 a day at a cost of Rs. 35 per 100. I have seen a sample hammer and it weighs 2¼ lb. and is I consider suitable for relief purposes.

2. As the Public Works Workshops are at present unable to meet the demand for hammers and consequently have to purchase inferior articles in the bazaar, I think it would be well if the Railway Branch be directed to thank the Madras Railway Company for their offer and ask them to manufacture 50,000 hammers weighing 2¼ lb. of the pattern supplied to Mr. Winterbotham as soon as possible. The cost will be Rs. 17,500.

No. 742 D., dated 7th July 1897.

Forwarded to the Revenue Department in continuation of letter No. K, dated 5th July 1897.

(Signed) D. McNEIL CAMPBELL, Col., R.E.,
Secretary to Government.

Order—No. 604, Revenue, dated 21st July 1897.

The Government will await the reports called for by the Chief Engineer as to the patterns of tools which have been found in actual use most serviceable for famine labourer and as to the exact number of serviceable tools now in stock, before passing orders on the proposals in the notes read above for the supply of famine tools to the fourteen districts dealt with therein and for the maintenance of a reserve stock. As, however, the need for stone-breaking hammers is urgent, the Consulting Engineer for Railways will be requested to arrange immediately with the Madras Railway Company for the manufacture of 50,000 hammers of the pattern supplied, on the terms specified in the letter of the Agent and Manager to Mr. Winterbotham. An urgent indent will also be made by telegram on the Right Hon'ble the Secretary of State for 90,000 steel hammers—30,000 of 1½ lb. weight, 30,000 of 2 lb. and 30,000 of 2½ lb. as recommended by the Chief Engineer. The Board of Revenue will be requested to submit at once a formal indent in quadruplicate for transmission to the Secretary of State.

2. As regards the chilled iron hammers now turned out by the Public Works Workshops the Government is of opinion that they should be subjected to trial on a sufficiently large scale before the present method of manufacture can be finally approved. The Chief Engineer should take immediate steps to have the trials carried out.

3. The Government concurs in the remarks in paragraph 26 of the Chief Engineer's note in regard to baskets and handles for tools. Collectors will accordingly be called upon to report as early as practicable what supply of handles each is in a position to obtain and at what cost (paragraph 10 of Mr. Winterbotham's note).

4. The attention of the Board of Revenue will be drawn to the remarks in paragraph 7 of the Chief Engineer's note as to the cost of cartage included in the estimates for road repairs. Collectors should be instructed to separate the amounts provided for cartage in the estimates of works and to show in their programmes in future only the amounts available for expenditure on famine labour.

5. The Government has already accepted the proposal referred to in paragraph 13 of the Chief Engineer's note to concentrate famine labour on large works, and has called upon the Board of Revenue to report the extent to which this can be done and to direct Collectors to have estimates for such works prepared immediately (*vide* G.O., No. 314, dated 11th May 1897). In regard to paragraph 16 of the Chief Engineer's note, the Government does not understand why it is considered that this concentration cannot be given effect to in the districts already affected; the Famine Commissioner will be requested to state his views in the matter and to report what steps have been taken to give effect to the order of the 11th May. The Consulting Engineer for Railways will be requested to ascertain whether the doubling of the Madras Railway referred to in paragraph 14 is likely to be available for famine relief this year and, if not, whether the preparations for the work could be pushed forward so as to make it available for the purpose in the near future.

6. Orders have already been issued in the sense suggested in paragraph 17 of the Chief Engineer's note. The Government approves the suggestion in paragraph 6 that twenty of the Public Works subordinates now on famine works in the Ceded districts be posted to the districts in which it may become necessary to start relief works, but is not prepared to give effect to the suggestion at once. Meanwhile, the Chief Engineer may warn the men whom he proposes to withdraw from the affected districts to be ready for duty elsewhere.

7. With reference to the Chief Engineer's remarks in paragraphs 2—5 of his note the Government, while admitting that the knowledge that preparations are being made to meet a famine may cause a panic and a further rise of prices, does not consider that it would be practicable to ascertain with any degree of accuracy to which of the causes enumerated the rise of prices in any district is due. Further, a rise to the scarcity rates is only one of the indications of distress, and in their recommendations for the opening of relief works, district officers are also guided by the consideration whether employment is still available in the fields and elsewhere or not. The number of permanent farm labourers whom the producers are bound to support all the year round is small in comparison with the number of labourers engaged monthly or daily for the season; and a rise to the scarcity rates, whatever the cause may be, combined with a failure of the sources of employment ordinarily available, must produce distress among the latter who form the vast majority of labourers.

8. The Government fully concurs in the remarks in paragraphs 1—3 of Mr. Winterbotham's note as to the insufficiency of the present scale of district establishments in all departments of the administration to meet any sudden extraordinary strain. The question is, however, too large a one to be dealt with on the present occasion; the subject will be fully considered when the Government comes to review the relief operations of the year on the cessation of distress.

9. In conclusion, the Government desires to thank Mr. Winterbotham and Colonel Campbell for the efficient and satisfactory manner in which they have discharged the duties entrusted to them; the reports of these officers on the eight districts visited by them have been full and exhaustive and the results of their tour most informing and useful. The tour has also had the effect of putting on their guard the officers of all the districts likely to be affected in case of the eventual failure of the monsoon.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

No. 2226 W.

Communicated to officers of the Public Works Department.

2. The Chief Engineer will submit the information called for by Government, and take action on paragraph 6 in regard to the men whom he proposes to withdraw from the affected districts.

(Signed) D. McNEIL CAMPBELL, Col., R.E.,
Secretary to Government.

16th August 1897.

Read—the following paper:—

Note by the Chief Engineer, Public Works Department, dated 14th August 1897, No. 1117 D.

With reference to paragraph 1 of the order in the Revenue Department read above, the Chief Engineer begs to submit the following statements:—

(1) Weight and description of tools which have been found in actual use most serviceable for famine labour (A).

(2) Number of serviceable tools in stock as compared with that proposed as the future reserve (B).

2. The following is the number of each description of tool required to work up to the reserve proposed by the Chief Engineer:—

Stone-breaking hammers	402,206
Crowbars	114,805
Rammers	46,285
Axes, hand	873
Bill hooks	2,102
Wooden cash-chests	108
Hammers, sledge	6,206
Prickly-pear tools	6,518
Galvanised iron chains	24
Jumpers	136

3. It is not proposed to keep a reserve at the head-quarter stations mentioned below, but the following tools are now in stock at those stations:—

Divisions.	Mamooties.	Hammers, stone-breaking.	Crowbars.	Pickaxes.	Rammers	Axes, hand.	Bill hooks.	Wooden cash chests.	Scales.	Hammers, sledge.	Prickly-pear tools.	Galvanised iron chains.	Jumpers.
Gódávari, Eastern ..	120	168	30	70	..	..	..	2	..	..	..	2	..
Negapatam	..	..	13	19	..	3	..	..	..	..	..	..	..
Tinnevelly	13	..	..	63	..	..	..	..	..	..	..	..	..
Madura	4,768	3,138	1,950	1,356	..	..	21	..	..	36	..	..	..
Malabar	..	..	..	..	..	..	..	..	..	..	..	..	..
South Canara	..	..	..	..	..	..	..	..	..	..	..	..	..
Tanjore	..	..	..	..	..	..	..	..	..	..	..	..	..

4. It may be added that there is a constant movement of famine tools and that stocks are being added to daily by supplies from the workshops and elsewhere. The statements now put forward as to available tools can thus only be regarded as approximately correct.

5. In regard to paragraph 2, the Chief Engineer submits that in a telegram received from the General Superintendent, Public Works Workshops, under date the 4th August 1897, he states that reports from famine districts on the chilled hammers turned out by the shops are satisfactory.

(Signed) D. McNEIL CAMPBELL, Colonel, R.E.,
Chief Engineer.

A.—STATEMENT showing the weight and description of tools which have been found in actual use best suited for famine-relief purposes.

Tools.	Weight in lb.				Dimensions.		Handles.				Remarks.	
	S.E. I.		S.E. III.				S.E. I.		S.E. III.			
	Minimum.	Maximum.	Minimum.	Maximum.	S.E. I.	S.E. III.	Length.	Diameter.	Length.	Diameter.	S.E. I.	S.E. III.
	LB.	LB.	LB.	LB.								
Stone-breaking hammers.	1½	2	2	3	..	4" to 5" long.	..	..	1'	* Oval, 1" at head, ½" at end.	1½ lb. is best suited for women.	Of solid steel. * Greatest diameter.
Mamooties	..	6	4	5	..	9"×7½" to 10½"×8½"	..	..	20" to 24"	Round, 2" at head, 1¼" at end.	A full-sized mamooty will weigh 9 to 10 lb. The mamooty which has its handle nearly parallel to the plate and which is known as the Madras pattern is more popular with the cooly. The other kind of mamooty is called Europe mamooty and is seldom used by labourers.	Wrought iron plate. The best form of mamooty is of Madras pattern with the handle at an angle of 45° with the blade. It should not exceed 5 lb. in weight. *Vide* sketch.
Sledge hammers ..	12	18	6	7	..	6" × 2" diameter.	..	..	30"	Oval, 2" at head, 1" at end.	Solid steel.	Solid steel.
Pickaxes	† 5	9	5	7	..	2" round curve.	..	..	24" to 30"	Do.	† The former weight is small and light.	Wrought iron. One end chisel blade, one end pointed, both well-steeled.
Crowbars	10	15	14	15	..	4' × 1" diameter.	..	..	..	..	....	Wrought iron; point well-steeled.
Rammers, iron ..	..	..	12	14	..	9" × 6" □ and 10" × 7" ○.	..	..	4'	1½" diameter or 1" if bamboo.	....	Cast iron.

SKETCH OF BEST FORM OF MAMOOTY.

Small mamooty.

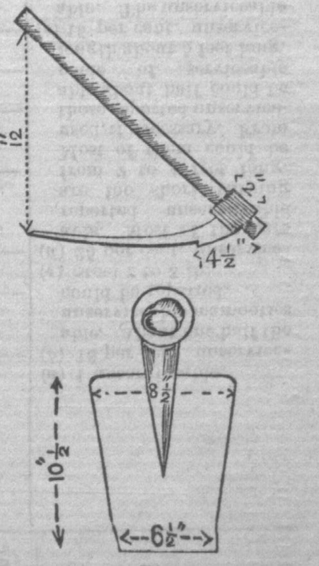

Fig. 5.

Weight 6 lb.

For famine-relief work weight should not exceed 5 lb.

(Intld.) W. B. DEW.

21st July 1897.

B.—STATEMENT showing the number of serviceable tools in stock as compared with that proposed as the future reserve.

Division.	Locality.	Totals.	Mamooties.	Hammers, stone-breaking.	Crowbars.	Pickaxes.	Rammers.	Axes, hand.	Bill hooks.	Wooden cash chests.	Scales.	Hammers sledge.	Prickly-pear tools.	Galvanised iron chains.	Jumpers.	Remarks.
Ganjám ..	Divisional store (Berhampur).	....	908	8,364	1,474	..	2,075	..	..	..	..	291	..	..	..	
	Issue account to Sub-divisional officers and Local Fund Department.	....	10,465	28,986	4,977	9,868	329	..	..	19	..	780	..	..	..	
		Total actual ..	11,373	37,350	6,451	9,868	2,404	..	..	19	..	1,071	..	..	..	(*a*) 1 unserviceable. (*b*) 18 per cent. unserviceable. About one half the unserviceable mamooties could be repaired. (*c*) Steel 2 to 3 lb. (*d*) 25 per cent. unserviceable. Most of the bars reported unserviceable are too short varying from 2 to 4 feet long. Most of them could be used, if necessary. From those reported unserviceable about half could be made of serviceable length about 5 feet long. (*e*) 15 per cent. unserviceable. The unserviceable pickaxes are very light and cannot be depended on for efficient labour. They could be served out to weak members of gangs. (*f*) 20 per cent. require slight repairs. (*g*) 20 per cent. old, but serviceable. There are 2,000 handles which require cutting.
		Proposed reserve ..	8,000	35,000	8,000	3,000	7,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	+ 3,373	+ 2,350	— 1,549	+ 6,868	— 4,596	— 500	— 500	+ 19	..	+ 571	— 500	..	..	
Vizagapatam ..	Divisional stores.	Total actual ..	2,408	57	(*a*) 8	(*a*) 1,008	673	..	..	..	..	300	..	..	..	
		Deduct— Unserviceable tools	..	..	1	1	..	..	..	..	..	..	..	..	..	
			2,408	57	7	1,007	673	..	..	..	..	300	..	..	..	
		Proposed reserve ..	15,000	55,000	10,000	5,000	6,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	— 12,592	— 54,943	— 9,993	— 3,993	— 5,327	— 500	— 500	..	..	— 200	— 500	..	..	
Gódávari Eastern.	Dumagudiem ..	Total actual ..	120	168	30	70	..	..	..	2	..	..	..	2	..	
Kistna Northern.	..	Total actual ..	(*b*) 1,306	(*c*) 76	(*d*) 1,723	(*e*) 164	..	..	..	..	..	..	..	..	..	
		Deduct— Unserviceable tools.	235	..	431	25	..	..	..	..	..	..	..	..	..	
			1,071	76	1,292	139	..	..	..	..	..	..	..	..	..	
		Proposed reserve ..	4,500	22,000	4,500	2,500	500	250	250	..	..	250	250	..	..	
		Excess+Deficiency—.	— 3,429	— 21,924	— 3,208	— 2,361	— 500	— 250	— 250	..	..	— 250	— 250	..	..	
Nellore ..	Divisional stores.	....	3,033	4,820	3,012	21	..	..	..	..	..	..	..	..	..	
	Gudur Sub-division.	....	..	40	..	..	..	..	..	..	..	..	..	..	..	
	Kundukur Sub-division.	....	..	100	..	..	..	..	..	..	..	..	..	..	..	
		Total actual ..	3,033	(*f*) 4,960	(*g*) 3,012	21	..	..	..	..	..	..	..	..	..	
		Proposed reserve ..	6,900	33,000	6,900	3,750	750	375	375	..	..	375	375	..	..	
		Excess+Deficiency—.	— 3,867	— 28,040	— 3,888	— 3,729	— 750	— 375	— 375	..	..	— 375	— 375	..	..	

B.—Statement showing the number of serviceable tools in stock as compared with that proposed as the future reserve—*cont*

Division.	Locality.	Totals.	Mamooties.	Hammers, stone-breaking.	Crowbars.	Pickaxes.	Rammers.	Axes, hand.	Bill hooks.	Wooden cash chests.	Scales.	Hammers, sledge.	Prickly-pear tools.	Galvanised iron chains.	Jumpers.	Remarks.
Bellary ..	Bellary ..	Total actual ..	(a) 41,612	(b) 53,874	(c) 2,133	(d) 29,390	(e) 13,855	(f) 897	..	(g) 85	..	(h) 2,500	(i) 907	..	(j) 130	Unserviceable— (a) 10,000; (b) 15,000; (c) 200; (d) 6,000; (e) 2,500; (f) 150; (g) 10; (h) 300; (i) 300 and (j) 30. (d) Includes 2,839 axes, pick, quarry.
		Deduct— Unserviceable tools.	10,000	15,000	200	6,000	2,500	150	..	10	..	300	300	..	30	
			31,612	38,874	1,933	23,390	11,355	747	..	75	..	2,200	607	..	100	
		Proposed reserve ..	10,000	55,000	10,000	6,000	5,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	+ 21,612	— 16,126	— 8,067	+ 17,390	+ 6,355	+ 247	— 500	+ 75	..	+ 1,700	+ 107	..	+ 100	
Do. ..	Anantapur ..	Total actual ..	(a) 14,727	(b) 35,121	(c) 412	(d) 10,659	(e) 2,796	6	(f) 256	28	(g) 3	171	..	..	14	Unserviceable— (a) 2; (b) 75; (c) 11; (d) 11; (e) 2; (f) 1; (g) 1, incomplete.
		Deduct— Unserviceable tools.	2	75	11	11	2	..	1	..	1	..	..	..	..	
			14,725	35,046	401	10,648	2,794	6	255	28	2	171	..	..	14	
		Proposed reserve ..	8,000	45,000	8,000	5,000	4,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	+ 6,725	— 9,954	— 7,599	+ 5,648	— 1,206	— 494	— 245	+ 28	+ 2	— 329	— 500	..	+ 14	
Kurnool ..	..	Total actual ..	(a) 64,619	(b) 61,250	(c) 8,166	(d) 60,379	(e) 2,344	260	236	34	..	(f) 883	..	..	..	Unserviceable— (a) 917; (b) 582; (c) 31; (d) 1,279; (e) 15; (f) 18.
		Deduct— Unserviceable tools.	917	582	31	1,279	15	..	..	..	..	18	..	..	..	
			63,702	60,668	8,135	59,100	2,329	260	236	34	..	865	..	..	..	
		Proposed reserve ..	10,000	50,000	9,500	5,000	5,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	+ 53,702	+ 10,668	— 1,365	+ 54,100	— 2,671	— 240	— 264	+ 34	..	+ 365	— 500	..	..	
Cuddapah ..	..	Total actual ..	(a) 44,710	(b) 86,106	(c) 7,004	(d) 30,445	(e) 3,591	198	680	(f) 35	6	..	..	..	..	Unserviceable— (a) 29; (b) 172; (c) 55; (d) 367; (e) 2; (f) 1.
		Deduct— Unserviceable tools.	29	172	55	367	2	..	..	1	..	..	..	..	..	
			44,681	85,934	6,949	30,078	3,589	198	680	34	6	..	..	..	..	
		Proposed reserve ..	15,000	80,000	15,000	5,000	10,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	+ 29,681	+ 5,934	— 8,051	+ 25,078	— 6,411	— 302	+ 180	+ 34	+ 6	— 500	— 500	..	..	
Coimbatore ..	Coimbatore ..	....	1,200	2,850	842	1,153	44	34	..	..	..	28	..	..	11	
	Bhavani ..	....	4,043	4,085	10	3,200	912	83	..	..	..	1	..	..	4	
	Thondampaliyam.	....	..	..	..	91	..	..	..	..	..	4	..	..	..	
	Karur ..	....	..	..	..	30	..	..	..	..	..	7	..	..	..	
	Kollegal ..	....	9	..	..	11	..	12	..	..	..	..	..	..	..	
		Total actual ..	(a) 5,252	(b) 6,935	852	* 4,485	(c) 956	129	..	..	..	(d) 40	..	..	15	*Includes 442 quarry picks.
		Deduct— Unserviceable tools.	5	75	..	..	2	..	..	..	..	1	..	..	..	Unserviceable, (a) 5; (b) 75; (c) 2; (d) 1. The tools at Thondampalaiyam, Karúr and Kollegal have not been counted by the Superintending Engineer.
			5,247	6,860	582	4,485	954	129	..	..	..	39	..	..	15	
		Proposed reserve ..	9,000	40,000	9,000	5,000	1,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	— 3,753	— 33,140	— 8,148	— 515	— 46	— 371	— 500	..	..	— 461	— 500	..	+ 15	
Salem ..	Salem ..	....	6,431	1,645	140	1,126	..	273	415	..	..	4	..	..	..	
	Tiruppattúr ..	....	7,406	10	682	1,379	241	214	11	..	* 1	36	..	..	15	* With 24 weights.
	Hosur ..	....	1,653	1,844	56	2,354	..	..	..	..	..	31	..	..	..	
	Barur ..	....	..	4	..	30	..	..	..	..	..	..	..	..	..	
		Total actual ..	15,490	3,503	878	4,889	241	487	426	..	1	71	..	..	15	
		Proposed reserve ..	9,000	44,000	9,000	5,000	1,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	+ 6,490	— 40,497	— 8,122	— 111	— 759	— 13	— 74	..	+ 1	— 429	— 500	..	+ 15	
North Arcot ..	..	Total actual ..	(a) 21,385	(b) 2,872	(c) 9,249	(d) 38,820	973	54	(e) 155	..	..	(f) 199	..	..	720	Repairable, (a) 8; (c) 109; † 6,910; (e) 98. † Includes 233 picks, country. Unserviceable, (a) 72; (b) 35; (c) 10; (d) 591; (e) 16; (f) 10.
		Deduct— Unserviceable tools.	72	35	10	591	..	..	16	..	..	10	..	..	..	
			21,313	2,837	9,239	38,229	973	54	139	..	..	189	..	..	720	
		Proposed reserve ..	9,000	44,000	9,000	5,000	1,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	+ 12,313	— 41,163	+ 239	+ 33,229	— 27	— 446	— 361	..	..	— 311	— 500	..	+ 720	
Chingleput ..	..	Total actual ..	6,400	..	980	745	..	..	..	..	..	..	..	2	..	
		Proposed reserve ..	4,500	22,000	4,500	2,500	500	250	250	..	..	250	250	..	..	
		Excess+Deficiency—.	+ 1,900	— 22,000	— 3,520	— 1,755	— 500	— 250	— 250	..	..	— 250	— 250	+ 2	..	
South Arcot ..	Cuddalore ..	....	336	..	6	152	..	..	..	..	..	..	..	..	..	
	Chidambaram.	....	58	..	..	..	..	..	..	..	..	..	..	..	..	
		Total actual ..	394	..	6	152	..	..	..	..	..	..	..	..	..	
		Proposed reserve ..	9,000	44,000	9,000	5,000	1,000	500	500	..	..	500	500	..	..	
		Excess+Deficiency—.	— 8,606	— 44,000	— 8,994	— 4,848	— 1,000	— 500	— 500	..	..	— 500	— 500	..	..	
Negapatam ..	..	Total actual ..	..	..	13	19	..	3	..	..	..	..	..	..	..	
5 Public Works Stores.	..	Total actual ..	18,423	9,451	9,711	(a) 12,361	1,653	4,368	3,113	..	..	..	..	..	..	(a) 398, unserviceable. Includes 3,768 picks, quarry.
		Deduct— Unserviceable tools.	..	..	..	398	..	..	..	..	..	..	..	..	..	
			18,423	9,451	9,711	11,963	1,653	4,368	3,113	..	..	..	..	..	..	
		Proposed reserve ..	50,000	1,00,000	50,000	30,000	30,000	1,000	1,000	300	..	5,000	1,000	28	1,000	
		Excess+Deficiency—.	— 31,577	— 90,549	— 40,289	— 18,037	—28,347	+ 3,368	+ 2,113	—300	..	— 5,000	— 1,000	— 28	--1,000	

B.—Statement showing the number of serviceable tools in stock as compared with that proposed as the future reserve—*cont.*

Division.	Locality.	Totals.	Mamooties.	Hammers, stone-breaking.	Crowbars.	Pickaxes.	Rammers.	Axes, hand.	Bill hooks.	Wooden cash chests.	Scales.	Hammers, sledge.	Prickly-pear tools.	Galvanised iron chains.	Jumpers.	Remarks.
Tinnevelly ..	..	Total actual ..	(a) 13	..	..	(b) 63	..	..	..	..	..	..	..	..	..	(a) 1 ; (b) 5 unserviceable.
		Deduct—Unserviceable tools.	1	..	..	5	..	..	..	..	..	..	..	..	..	
			12	..	..	58	..	..	..	..	..	..	..	..	..	
Trichinopoly.	..	Total actual ..	(a) 1,370	..	262	(b) 1,814	..	..	153	..	..	..	..	..	..	(a) 15 or 1·09 per cent. unserviceable. (b) 64 or 3·52 per cent. unserviceable.
		Deduct—Unserviceable tools.	15	..	..	64	..	..	..	..	..	..	..	..	..	
		....	1,355	..	262	1,750	..	..	153	..	..	..	..	..	..	
		Proposed reserve ..	4,500	22,000	4,500	2,500	500	250	250	..	..	250	250	..	..	
		Excess + Deficiency—	— 3,145	— 22,000	— 4,238	750	—500	—250	97	..	..	—250	—250	..	..	
Madura ..	Divisional Stores.	....	1,027	..	402	96	..	..	..	..	..	3	..	..	..	
	Tirumangalam	....	..	..	30	40	..	..	..	..	..	1	..	..	..	
	Madura ..	....	223	346	1,123	10	..	..	..	..	..	6	..	..	..	
	Dindigul ..	....	3,506	2,792	368	703	..	..	2	..	..	23	..	..	..	
	Periyár Works.	....	12	..	27	507	..	..	19	..	..	3	..	..	..	
		Total actual ..	4,768	(a) 3,138	(b) 1,950	(c) 1,356	..	..	21	..	..	(d) 36	..	..	..	(a) 128 ; (b) 6 ; (c) 267 ; (d) 23 unserviceable. (c) Includes 370 kunthalas (picks, quarry).
		Deduct—Unserviceable tools.	..	128	6	267	..	..	..	..	..	23	..	..	..	
			4,768	3,010	1,944	1,089	..	..	21	..	..	13	..	..	..	
		Grand total actual ..	2,57,403	3,04,861	52,840	2,06,708	29,486	6,402	5,040	203	10	5,271	907	4	894	
		Deduct—Unserviceable tools.	11,276	16,067	745	9,008	2,521	150	17	11	1	352	300	..	30	
		Net total, serviceable tools.	2,46,127	2,88,794	52,095	1,97,700	26,965	6,252	5,023	192	9	4,919	607	4	864	
		Total proposed reserve.	1,72,400	6,91,000	1,66,900	90,250	73,250	7,125	7,125	300	..	11,125	7,125	28	1,000	
		Excess + Deficiency—	+ 73,727	—4,02,206	—1,14,805	+1,07,450	—46,285	—873	—2,102	—108	+ 9	—6,206	—6,518	—24	—136	

Note.—The question as to the reserve under "scales" has been referred to the Revenue Department (*vide* Endorsement No. 969 D., dated 29th July 1897).

D. McNEIL CAMPBELL, Colonel R.E.,
Chief Engineer, Public Works Department.

13th August 1897.

Memorandum from the Public Works Department, dated Ootacamund, 14th August 1897, No. 1118 D.

Transferred to the Revenue Department.

(Signed) D. McNEIL CAMPBELL, Colonel, R.E.,
Secretary to Government.

Mis. No. 4307, Revenue.

Retransferred to the Public Works Department to which all papers relating to the provision of famine tools are now being transferred for disposal.

(Signed) G. STOKES,
Ag. Secretary.

17th August 1897.

ORDER—No. 2533 W., dated 13th September 1897.

His Excellency the Governor in Council agrees with the Chief Engineer, under the circumstances explained in paragraph 3 of his note of the 9th August 1897 recorded above, that it is not now necessary to enter into any contract with C. A. R. Aiyar & Co. of Trichinopoly for the supply of hammers for the famine-relief works. The supply from Home of so many of the 90,000 hammers ordered by wire as have not already been shipped has also been cancelled by telegram to the Secretary of State, dated 13th August 1897. The indent submitted by the Board of Revenue will not therefore be forwarded.

2. As recommended in paragraph 6, the General Superintendent, Public Works Workshops, will manufacture daily 1,000 chilled cast-iron hammers and 500 steel-faced hammers till further orders, or until the full number of hammers in stock in the Presidency amounts to 691,000. He will be carefull that this limit is not exceeded, and will therefore arrange to have on record exact information as to numbers stored in districts.

3. As regards the question raised in paragraphs 7 and 8 of the Chief Engineer's note, the Public Works Department will be guided by the orders issued in G.O., No. 481, Revenue, dated 21st June 1897. The responsibility previous to periods of of famine will rest with the Chief Engineer and the Public Works Department. Suggestions or requests made by Collectors at other than famine times should be duly considered; and, during a famine, should be promptly complied with. In accordance with these orders, the Public Works Department is responsible for seeing that previous to famine, a sufficient number of tools is provided for labourers likely to come on relief works. This involves the fixing of a suitable reserve of tools to be stored at specified centres. The proposals of the Chief Engineer already made with this view in the note recorded with G.O., No. 604, Revenue, dated 21st July 1897, will accordingly be finally dealt with in the Public Works Department. As, however, the number of tools is necessarily based on the number of labourers likely to resort to the works,—a matter upon which Civil officers are in a better position to advise,—the Chief Engineer's estimate will be reviewed in the Revenue Department prior to final approval. The tools will thereupon be provided either locally or got out from Home, as may be necessary, and so far as funds can be allotted for the purpose.

4. In preparing indents or procuring tools locally, the Public Works Department will be guided by the weight and description of tools which have been found in actual use most serviceable for famine labour, as specified in statement A recorded with Chief Engineer's note, No. 1117 D., dated 14th August 1897.

(True Extract.)

Under Secretary to Government.

To Superintending Engineers.
„ the Examiner, Public Works Accounts.
„ the Revenue Department.
„ the Chief Engineer, Public Works Department.
„ the Financial Department.

Exd. T. K. Narayana Aiyangar.

Famine Tools

urgent

H.E. the Governor
~~The Hon Mr Grose C.I.E~~
~~The Hon Sir Henry Bliss K.C.I.E~~

Print 2 copies. Proofs to be carefully checked. If can be sent to the for this purpose the Secretary will be glad for proceedings. There should be no delay about this. R.S. 31 Aug 97

Please send copies of proof

9/16 2/9/97

Public Works DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

SECY. GOVT. P.W.D. 2? A. 97

READ the following

Office Note to the Secretary to Govt. Rev. Dept. No. 311 D. d/22nd May '97.

G. O. No. 3902, Revenue, dated 27th July 1897.

Pros. of the Board of Rev. (Rev. Sett., &c.) No. 5784 Mis. d/26th July 1897.

Endt. thereon in the Rev. Dept. R. No. 1441 dated 29th July 1897.

Pros. of the Board of Rev. (Rev. Sett. &c.) No. 5962 Mis. d/30th July 1897.

Endt. thereon in the Rev. Dept. R. No. 1470 dated 3rd August 1897.

Pros. of the Board of Rev. (Rev. Sett. &c.) No. 5976 Mis. d/31st July 1897.

Endt. thereon in the Rev. Dept. Mis. No. 4040 dated 4th August 1897.

Telegram from the Secretary of State dated 31st July 1897.

Endt. thereon in the Rev. Dept. Mis. No. 4080 dated 5th August 1897.

Note by the Chief Engineer, P. W. D. dated 9th August 1897.

G. O. No. 604, Revenue, dated 21st July 1897.

Endt. thereon in the P. W. D. No. 2226 W. dated 16th August 1897
and 1118 D.

Note by the Chief Engineer, P. W. D. No. 1117 D. dated dated 14th August 97.

Endt. thereon in the Revenue Dept. Mis. No. 4307 dated 17th August 1897.

Quote

Print with Statements and Sketch

No 2533 W 13 Sep 97

18

× Flag B

To
The Secretary to Govt
Revenue Department for
favour of counterinitials.

Approved with the addition ordered by H.E.

J.G.

30/8/97

30/8/97

01/8/97

W 31 Aug 97

His Excellency the Governor in Council agrees with the Chief Engineer, under the circumstances explained in para 3 of his note of the 9th August 1897 recorded above, that it is not now necessary to enter into any contract with C. A. R. Aiyar & Co. of Trichinopoly for the supply of hammers for the Famine Relief Works. The supply from home of so many of the 90,000 hammers ordered by wire as have not already been shipped has also

[P. W. 40. / 1,000—26-2-97.]

H.E. 23.8-97 R 30/8/97 H.M. 30/8/97 R 30/8/97 also been cancelled by telegram to the Secretary of State dated 13th August 1897. The indent submitted by the Board of Revenue will not therefore be forwarded.

Flag C

2. As recommended in para 6, the General Superintendent, P. W. Workshops, will manufacture, daily, 1,000 chilled cast iron hammers and 500 steel faced hammers till further orders, or until the full number of hammers in stock in the Presidency amounts to 6,91,000. He will be careful that this limit is not exceeded, and will therefore arrange to have on record exact information as to numbers stored in districts.

3. As regards the question raised in paras 7 and 8 of the Chief Engineer's note the P. W. Department will be guided by the orders issued in G.O. 481 Revenue dated 21st June 1897. In accordance with these orders, the P. W. D. is responsible for seeing that previous to famine, a sufficient number of tools is provided for labourers likely to come on relief works. This involves the fixing of a suitable reserve of tools to be stored at specified centres. The proposals of the Chief Engineer already made with this view, in ~~letter No. K. dated 5th July 1897,~~ the note recorded with G.O. 604 Revenue dated 21st July 1897, will accordingly be finally dealt with in the P. W. D. As, however, the number of tools is necessarily based on the number of labourers likely to resort to the works, a matter upon which Civil officers are in a better position to advise, the Chief Engineer's estimate will be reviewed in the Revenue Department prior to final approval. The tools will thereupon be provided either locally or got out from home, as may be necessary, and so far as funds can be allotted for the purpose.

→ The responsibility previous to periods of famine will rest with the Chief Engineer and the Public Works Depts. Suggestions or requests made by Collectors at other than famine times should be duly considered, and during a famine should be promptly complied with –

Flag D

× Insert here that portion of my Note of 13.8.97, shown within brackets in blue pencil. This will make the whole more clear. A.S.M. 28.8.97

Flagged H.

Entered R.S.

Flag E

Flag F.

Flag E

4. In preparing indents or procuring tools locally, the P. W. D. will be guided by the weight and description of tools which have been found in actual use most serviceable for famine labour, as specified in Statement A recorded with Chief Engineers note No. 1117 D. dated 14th August 1897.

R.S.

20/8/97

23/8/97.

To

Suptg. Engineers.
The Examiner, P. W. Accounts.
,, Revenue Department.
,, C. E. P. W. Dept.
,, Financial Dept.

22/9/97

~~note~~ [illegible] retained as note

P. W.
~~Revenue~~ **(1897) Department.**

S 17

CURRENT No. ~~7008~~ 8832

RS 19-8-97

15 AUG 97
REV. DEP

Desp. 17/8/97

Order m/s No 4307 d/17 Augt. 97

Retransferred to the P.W.D. to which all papers relating to the provision of famine tools are now being transferred for disposal

G. Wilkins
of Secretary

RS
16-8-97

B

Read This with the draft order already written.
R.S. 19 Aug 97

Done accordingly
GM 19/9/97

P. W. 29.
1,000—27-4-97.

OS
28

Fam. ord.
16-96

From

The Public Works department

No. 1118 D

Dated 14th August 1897
Received ~~16.8.97~~ 2-9-97
Enclosures ~~3~~ 4
Spare copies -

SUBJECT.

Famine Tools

Transferring note by the Chief Engineer P.W.D. submitting statements giving the weight and description of — which have been found in actual use most serviceable for famine labour and showing the numbers of serviceable tools in stock & stating that the reports from famine districts on the chilled hammers turned out by the workshops are satisfac

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

No. 1118 D

B. O

Govenment of Madras.

PUBLIC WORKS **DEPARTMENT.**

P.W. 14

MEMORANDUM.

Ootacamund

Dated ~~*Madras*~~, 14th August 1897

Read

G.O. 604, Revenue, dated 21st July 1897.

Endorsement thereon in the P.W.D. No. 222 W dated 16th August 1897

Note by the Chief Engineer, P.W.D. dated 14th August 1897

No. 1117 D.—

With reference to para 1 of the order in the Revenue Department read above the Chief Engineer begs to submit the following statements:-

(1). Weight and description of tools which have been found in actual use most serviceable for famine labour. A.

(2). Number of serviceable tools in stock as compared with that proposed as the future reserve. B.

2. The following is the number of each description of tool required to work up to the reserve proposed by the Chief Engineer:-

Stone breaking hammers.		~~4,02,166.~~ 4,02,206
Crowbars	---	~~1,14,795.~~ 1,14,825
Rammers	---	46,285.
Axes hand	---	873.
Bill hooks	---	2,102.
Wooden cash chests.		108.
Hammers sledge	---	6,206.
Prickly pear tools-		6,518.
Galvanised iron chains.		~~26.~~ 24
Jumpers.	---	136.

P. W. 41²
1,000—14-7-97

3. It is not proposed to keep a reserve at the head quarter

quarter stations mentioned below, but the following tools are now in stock at those stations:-

Divisions	Mamoties	Hammers stone breaking	Crowbars	Pickaxes	Rammers	Axes hand	Bill hooks	wooden cash chests	Scales	Hammers sledge	Prickly pear tools	Galvanised iron chains	Jumpers
Godavari Eastern.	120	168	30	70	"	"	"	2		..	..	2	-
Negapatam	"	..	13	19	..	3	..	"	-	-	-	-	-
Tinnevelly	13	..	..	63	..	..	..	..	..	..	..	..	..
Madura	4,768	3,138	1,950	1,356	-	...	21	..	..	36	..	..	..
Malabar	..	..	..	..	..	..	..	..	..	..	..	..	..
S. Canara	..	..	..	..	..	..	..	..	..	..	..	..	..
Tanjore	..	..	..	..	-	..	..	..	..	..	..	..	..

4. It may be added that there is a constant movement of famine tools and that stocks are being added to daily suppp by supplies from the Workshops and elsewhere. The statements now put forward as to available tools can thus only be regarded as approximately correct.

5. In regard to para 2, the Chief Engineer submits that in a telegram received from the General Superintendent, P. W. Workshops, under date the 4th August 1897, he states that reports from famine districts on the chilled hammers turned out by the Shops are satisfactory.

(Signed) D. McNeil Campbell, Colonel, R.E.,
Chief Engineer.

Transferred to the Revenue Department.

D. McN. Campbell Colonel, R.E.,
Secretary to Government.

To

The Revenue Department.

A - 15

Statement showing the weight and description of tools which have been found in actual use best suited for famine relief purposes.

1897
Enclosure No. 2
7008

Statement showing the weight and description of tools

pu

Tools	Weight in lbs				Dimensions		Handles		
	S. E. I		S. E. III		S E I	S E III	S E I		
	Minimum	Maximum	Minimum	Maximum			Length	Diameter	L
Stone breaking hammers	lbs 1½	lbs 2	lbs 2	lbs 3	"	4" to 5" long	"	"	1
Mamooties	"	6	4	5	"	9"×7½" to 10½"×8½"	"	"	20
Sledge hammers	12	18	6	7	"	6"×2" diameter	"		3
Pick axes	5	9	5	7	"	2" round curved	"	"	2
Crowbars	10	15	14	15	"	4'×1" diameter	"	"	
Rammers iron	"	"	12	14	"	9"×6" ☐ & 10"×7" ○	"	"	

13.8.97

To be printed with (C)

Pro: M.S.
20 Aug 97

Sketch of best form of Mamooty

SMALL MAMOTY

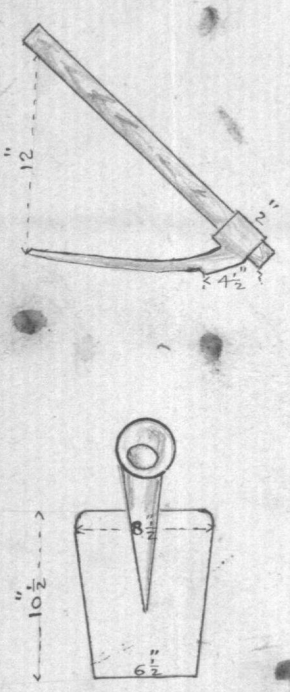

FIG. 5.

WEIGHT. 6 lbs.

For Famine Relief work weight should not exceed 5 lbs.

21.9.97

hich have been found in actual use best suited for famine relief
poses.

E. III		Remarks	
gth	Diameter	S E I	S E III
oot	*oval 1" at head ½" at end	1½ lb is best suited for women	Of solid steel. * greatest diameter
24" ches	Round 2" at head 1¼" at end	A full sized mamooty will weigh 9 to 10 lbs. The mamooty which has its handle nearly parallel to the plate and which is known as the Madras pattern is more popular with the cooly. The other kind of mamooty is called Europe mamooty and is seldom used by labourers.	Wrought iron plate. The best form of mamooty is of Madras pattern with the handle at an angle of 45° with the blade. It should not exceed 5 lbs in weight. Sketch attached (C)
ches	Oval 2" at head 1" at end	Solid steel	Solid steel
& 30"	Oval 2" at head 1" at end	* The former weight is small and light	Wrought iron. One end chisel blade, one end pointed, both well steeled.
	"		Wrought iron, point well steeled
'	1½" diameter or 1" if bamboo		Cast iron

(Leave space for sketch)

D. McW. Campbell Colonel R.E.

Chief Engineer P.W.D.

7
1
7008

Ow 5.2
8837(59)

B

Statement showing the number of serviceable tools in stock as compared with that proposed as the future reserve.

Statement showing the number of serviceable tools in stock as co

Division	Locality	Totals	Mamooties	Hammers stone breaking	Crowbars	Pickaxes	Rammers	Axes hand	Billhooks
Ganjam	Divisional Store (Berhampur)		908	8,364	1,474	"	2,075	"	"
	Issue account to Sub Dl. Officers & L.F. Dept.		10,465	28,986	4,977	9868	329	"	"
		Total actual	11,373	37,350	6,451	9,868	2,404	"	"
		Proposed reserve	8,000	35,000	8,000	3,000	7,000	500	50
		Excess + Deficiency –	+3373	+2350	-1549	+6868	-4596	-500	-50
Vizagapatam	Divisional Stores.	Total actual	2408	57	(a) 8	(b) 1,008	673	"	"
		Deduct Unserviceable tools	"	"	1	1	"	"	"
			2408	57	7	1,007	673	"	"
		Proposed reserve	15,000	55,000	10,000	5,000	6,000	500	50
		Excess + Deficiency –	-12,592	-54,943	-9993	-3993	-5327	-500	-5
Godavari Eastern	Dummagudiem.	Total actual	120	168	30	70	"	"	"
Kistna Northern		Total actual	(a) 1306	(b) 76	(c) 1723	(d) 164	-	"	-
		Deduct Unserviceable tools	235	"	431	25	"	"	"
			1071	76	1292	139	"	"	"
		Proposed reserve	4,500	22,000	4,500	2500	500	250	25
		Excess + Deficiency –	-3429	-21,924	-3208	-2,361	-500	-250	-25

"	"	291	"	"	"			
19	"	780	"	"	"			
19	"	1071	"	"	"			
"	"	500	500	"	"			
+19	"	+571	-500	"	"			
"	"	300	"	"	"			(a) 1 unserviceable (b) 1 unserviceable
"	"	"	"	"	"			
"	"	300						
"	"	500	500	"	"			
-	-	-200	-500	"	"			
2	"	"	"	"	"	"	"	
"	"	"	"	"	"	"	"	(a) 18 percent unserviceable. About one half the unserviceable ~~tools~~ mamooties could be repaired
"	"	"	"	"	"	"	"	(b) Steel 2 to 3 ~~lbs~~. (c) 25 percent unserviceable. Most of the bars reported unserviceable are too short varying from 2 to 4 ft. long. Most of them could be used if necessary. From those reported unserviceable about $\frac{1}{2}$ could be made of serviceable length, about 5 ft. long.
"	"	"	"	"	"	"	"	
"	"	250	250	"	"	"	"	
"	"	-250	-250	"	"	"	"	(d) 15 per cent unserviceable. The unserviceable pickaxes are very light and cannot be depended on for efficient labour. They could be served out to weak members of gangs.
3	3	4	4	3	3			
3	3	4	[illegible]	3	3			

12

Nellore	Divisional Stores.		3033	4820	3012	21	"	"	"	"	"	"	"	"	"			
	Gudur Sub Do.		"	40	"	"	"	"	"	"	"	"	"	"	"			
	~~Sungam~~ Kundukur Sub Do.		"	100	"	"												
		Total actual	3033	(a) 4960	(b) 3012	21	"	"	"	"	"	"	"	"	"			(a) 20 percent require slight repairs; (b) 20 percent old but serviceable There are 2000 handles which require cutting
		Proposed reserve	6900	33000	6900	3750	750	375	375	"	"	375	375	"	"			
		Excess + Deficiency –	-3867	-28040	-3888	-3729	-750	-375	-375	"	"	-375	-375	"	"			
Bellary	Bellary	Total actual	(a) 41612	(b) 53874	(c) 2133	(d) 29390	(e) 13855	(f) 897	"	(g) 85	"	(h) 2500	(i) 907	"	(j) 130	"	"	Unserviceable (a) 10000. (b) 15000. (c) 200; (d) 6000; (e) 2500; (f) 150; (g) 10; (h) 300; (i) 300 + (j) 30. (d) Includes 2839 axes pick quary-
		Deduct Unserviceable tools	10000	15000	200	6000	2500	150		10	"	300	300	"	30	"	"	
			31612	38874	1933	23390	11355	747		75	"	2200	607	"	100	"	"	
		Proposed reserve	10000	53000	10000	6000	5000	500	500	"	"	500	500	"	"	"	"	
		Excess + Deficiency –	+21612	-16126	-8067	+17390	~~-6355~~ +6355	+247	-500	+75	"	+1700	+107	"	+100	"	"	
Do	Anantapur	Total actual	(a) 14727	(b) 35121	(c) ~~422~~ 412	(d) 10659	(e) 2796	6	(f) 256	28	(g) 3	171	"	"	14			Unserviceable. (a) 2; (b) 75; (c) 11; (d) 11. (e) 2; (f) 1; (g) 1 incomplete.
		Deduct Unserviceable tools	2	75	11	11	2		1	"	1							
			14725	35046	~~411~~ 406	10648	2794	6	255	28	2	171	"	"	14			
		Proposed reserve.	8000	45000	8000	5000	4000	500	500	"	"	500	500	"	"			
		Excess + Deficiency –	+6725	-9954	~~7589~~ -7599	+5648	-1206	-494	-245	+28	+2	-329	-500	"	+14			
Kurnool		Total actual	(a) 64619	(b) 61250	(c) 8166	(d) 60379	(e) 2344	260	236	34	"	(f) 883	"	"	"			Unserviceable (a) 917. (b) 582; (c) 31; (d) 1279 (e) 15; (f) 18
		Deduct Unserviceable tools	917	582	31	1279	15	"		"	"	18	"	"	"			
			63702	60668	8135	59100	2329	260	236	34	"	865	"	"	"			
		Proposed reserve	10000	50000	9500	5000	5000	500	500	"	"	500	500	"	"			
		Excess + Deficiency –	+53702	+10668	-1365	+54100	-2671	-240	-264	+34	"	+365	500	"	"			

			(a)	(b)	(c)	(d)	(e)			(f)						
Cuddapah		Total actual	44,710	86,106	7,004	30,445	3,591	198	680	35	6	"	"	"	"	Unserviceable. (a) 29; (b) 172; (c) 55; (d) 367; (e) 2; (f) 1.
		Deduct														
		Unserviceable tools	29	172	55	367	2	"	"	1	"	"	"	"	"	
			44,681	85,934	6,949	30,078	3,589	198	680	34	6	"	"	"	"	
		Proposed reserve	15,000	80,000	15,000	5,000	10,000	500	500	"	"	500	500	"	"	
		Excess + Dificiency –	+29,681	+5,934	-8,051	+25,078	-6,411	-302	+180	+34	+6	-500	-500	"	"	
Coimbatore	Coimbatore		1,200	2,850	846	1,153	44	34	"	"	"	28	"	"	11	
	Bhavani		4,043	4,085	10	3,200	912	83	"	"	"	1	"	"	4	
	Thondampalyam		"	"	"	91	"	"	"	"	"	4	"	"	"	
	Karur		"	"	"	30	"	"	"	"	"	7	"	"	"	
	Kollegal		9	"	"	11	"	12	"	"	"	"	"	"	"	* Includes 442 quarry picks.
		Total actual	a 5,252	b 6,935	~~852~~ 856	* 4,485	(c) 956	129	"	"	"	(d) 40	"	"	15	Unserviceable. (a) 5; (b) 75; (c) 2; (d) 1.
		Deduct Unserviceable tools	5	75	"	"	2	"	"	"	"	1	"	"	"	The tools at Thondampalyam, Karur and Kollegal have not been counted by the Supdg. Engineer.
			5,247	6,860	~~852~~ 850	4,485	954	129	"	"	"	39	"	"	15	
		Proposed reserve	9,000	40,000	9,000	5,000	1,000	500	500	"	"	500	500	"	"	
		Excess + Dificiency –	~~-3748~~ -3753	~~-33065~~ -33,140	~~-8148~~ -8144	-515	-46	~~-471~~ -371	-500	"	"	-461	-500	"	+15	
Salem	Salem		6,431	1,645	140	1,126	"	273	415	"	"	4	"	"	"	
	Tirupatur		7,406	10	682	1,379	241	214	11	"	* 1	36	"	"	15	* with 24 weights.
	Hosur		1,653	1,844	56	2,354	"	"	"	"	"	31	"	"	"	
	Barur		"	4	"	30	"	"	"	"	"	"	"	"	"	
		Total actual	15,490	3,503	878	4,889	241	487	426	"	1	71	"	"	15	
		Proposed reserve	9,000	44,000	9,000	5,000	1,000	500	500	"	"	500	500	"	"	
		Excess + Deficiency –	+6,490	-40,497	-8,122	-111	-759	-13	-74	"	+1	-429	-500		+15	

			(a)	(b)	(c)	(d)			(e)			(f)						
North Arcot		Total actual	21,385	2,872	9,249	38,820	973	54	155	"	"	199	"	"	720			Repairable (a) 8; (c) 109; (d) 6910; (e) 98 Unserviceable. (d) Includes 233 picks country (a) 72 (b) 35 (c) 10; (d) 591; (e) 16 (f) 10.
		Deduct Unserviceable tools	72	35	10	591	"	"	16	"	"	10	"	"	"			
			21,313	2,837	9,239	38,229	973	54	139	"	"	189	"	"	720			
		Proposed reserve	9,000	44,000	9000	5,000	1,000	500	500	"	"	500	500	"	"			
		Excess + Deficiency –	+12,313	-41,163	+239	+33,229	-27	-446	-361	"	"	-311	-500	"	+720			
Chingleput		Total actual	6,400	"	980	745	"	"	"	"	"	"	"	2	"			
		Proposed reserve	4,500	22,000	4,500	2,500	500	250	250	"	"	250	250	"	"			
		Excess + Deficiency –	+1900	-22,000	-3520	-1755	-500	-250	-250	"	"	-250	-250	+2	"			
South Arcot	Cuddalore		336	"	6	152	"	"	"	"	"	"	"	"	"			
	Chidambaram		58	"	"	"	"	"	"	"	"	"	"	"	"			
		Total actual	394	"	6	152	"	"	"	"	"	"	"	"	"			
		Proposed reserve	9,000	44,000	9,000	5,000	1,000	500	500	"	"	500	500	"	"			
		Excess + Deficiency –	-8,606	-44,000	-8994	-4848	-1000	-500	-500	"	"	-500	-500	"	"			
Negapatam		Total actual	"	"	13	19	"	3	"	"	"	"	"	"	"			
P.W. Stores.		Total actual	18,423	9451	9711	(a) 12,361	1,653	4,368	3,113	"	"	"	"	"	"			(a) 398 unserviceable. Includes 3768 picks quary
		Deduct Unserviceable tools	"	"	"	398	"	"	"	"	"	"	"	"	"			
			18,423	9451	9711	11,963	1653	4,368	3113	"	"	"	"	"	"			
		Proposed reserved	50,000	100,000	50,000	30,000	30,000	1,000	1,000	300	"	5,000	1000	28	1,000			
		Excess + Deficiency –	-31,577	-90,549	-40,289	~~-17639~~ -18037	-28,347	+3,368	+2,113	-300	"	-5,000	-1,000	-28	-1000			
Tinnevelly		Total actual	(a) 13	"	"	(b) 63	"	"	"	"	"	"	"	"	"	"	"	Unserviceable (a) 1; (b) 5.
		Deduct Unserviceable tools	1	"	"	5				"	"	"	"	"	"	"	"	
			12	"	"	58	"	"	"									

Trichinopoly		Total actual	(a) 1370	~~262~~ "	262 ~~1814~~	(b) 1814	"	"	153	"	"	"	"	"	"	"	"	(a) 15 or 1·09 per cent unserviceable (b) 64 or 3·52 per cent unserviceable
		Deduct Unserviceable tools	15			64												
			1355	"	262	1750	"	"	153	"	"	"	"	"	"	"	"	
		Proposed reserve	4500	22000	4500	2500	500	250	250	"	"	250	250	"	"	"	"	
		Excess + Deficiency –	-3145	-22000	-4238	750	-500	-250	97	"	"	-250	-250					
Madura	Divisional Stores		1027	"	402	96	"	"	"	"	"	3	"	"	"	"	"	
	Tirumangalam		"	"	30	40	"	"	"	"	"	1	"	"	"	"	"	
	Madura		223	346	1123	10	"	"	"	"	"	6	"	"	"	"	"	
	Dindugal		3506	2792	368	703	"	"	2	"	"	23	"	"	"	"	"	
	Periyar Works		12	~~27~~	27 ~~27~~	507	"	"	19	"	"	3	"	"	"	"	"	Unserviceable (a) 128; (b) 6; (c) 267; (d) 23 (c) Includes 370 Kunthalas (picks quarry)
		Total actual	4768	(a) ~~3165~~ 3138	(b) ~~2430~~ 1950	(c) ~~949~~ 1356	"	"	21	"	"	(d) 36	"	"	"	"	"	
		Deduct Unserviceable tools	"	128	6	267	"	"	"	"	"	23	"	"	"	"	"	
			4768	3010	1944	1089	"	"	21	"	"	13	"	"	"	"	"	
		Grand total actual	257403	304861	~~52840~~ 52840 ~~52850~~ 52840	206708	29486	6402	5040	203	10	5271	907	~~2~~ 4	894	"	"	
		Deduct Unserviceable tools	11276	16067	745	9008	2521	150	17	11	1	352	300	"	30	"	"	
		Net total serviceable tools	246127	288794	52095 ~~52105~~ ~~52099~~	197700	26965	6252	5023	192	9	4919	607	~~2~~ 4	864	"	"	
		Total Proposed reserve	172400	691000	166900	90250	73250	7125	7125	300	"	11125	7125	28	1000	"	"	
		Excess + Deficiency –	+73727	-402206	~~114795~~ ~~114809~~ 114805	+107150	46285	-873	2102	-108	+9	-6206	-6518	~~-26~~ -24	-136	"	"	

Note. The question as to the reserve under "Scales" has been referred to the Revenue Dept vide Endorsement No 769 W dt 29th July 1897.

D. McL. Campbell Colonel R.E.
Chief Engineer P.W.D

CM
13.8.97

pared with that proposed as the future reserve.

Wooden cash chests	Scales	Hammers, sledge	Prickly pear tools	Galvanized iron chains	Jumpers.			Remarks.
5	3	4	4	3	3			

OW.3
8832(5)

Government { 1897 } of Madras.

REVENUE.

Recd.
Regd. } 1897.

Enclosures
Spare copies

G.O., No. 604, 21st July 1897.

JULY.

Order thereon – No. 2226 W dated 16 August 1897

Communicated to officers of the P.W.D.

2. The Chief Engineer will submit the information called for by Government, and take action on para 6. in regard to the men whom he proposes to withdraw from the affected districts.

Passing orders on the final report submitted by the Third Member, Board of Revenue and the Chief Engineer and Secretary to Government, Public Works Department, regarding Famine Relief works, estimates and Famine tools, &c.

(Sd) D. McNeil Campbell
Col. R.E.,
Secy to Govt. P.W.D.

To Supt. Engineers
" Chief Supt. P.W.D.
" Chief Engr for Irrgn.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—letter from the Hon'ble Colonel D. McNEIL CAMPBELL, R.E., Chief Engineer and Secretary to Government, Public Works Department, and H. M. WINTERBOTHAM, Esq., I.C S., 3rd Member, Board of Revenue, to the Secretary to Government, Revenue Department, dated Madras, 5th July 1897, No. K.

In continuation of our letter I, dated June 24th, 1897, we have the honor to submit herewith a separate note by each of us, embodying the general remarks which each wishes to make in connection with the eight joint reports which we have already submitted.

On the completion of our tour to the eight districts, arrears of work urgently required our immediate return to our respective head-quarters, and we thought it unnecessary to spend the time and incur the delay which the composition of a joint report would have involved.

No. 2226 dated 16 August 1897

Note by H. M. Winterbotham, Esq., I.C.S., *Third Member of the Board of Revenue, dated 3rd July* 1897.

With reference to the eight reports which we have submitted on the districts of Coimbatore, Salem, North Arcot, Nellore, Kistna, Chingleput, South Arcot and Trichinopoly, the following points seem to call for further remark or explanation.

1. *Establishments.*—For Coimbatore (the first District we visited) we recommended the immediate entertainment of 8 temporary Surveyors with 3 lascars each, for the preparation of estimates (suitable for the employment of relief workers) for the repair of tanks and channels in charge of the Department of Public Works.

We have not made a similar recommendation for the other Districts, though the transfer of hands for famine duty has seriously weakened the ordinary Staff in all of them, and though the Public Works Department contributions to the Famine Programmes are everywhere less than they should be. This inconsistency is due to our sense *first* of the impossibility of finding the requisite number of qualified temporary hands, and *second* of the waste of money which will result, should elaborate preparations for an extended drought happily prove unnecessary.

When the famine ceases, retrenchment is likely to be the order of the day. The works would not generally be such as could be classed as emergent, and the estimates would not keep serviceable for an indefinite time.

2. When, however, part (often the greater part) of the ordinary staff in a District has been moved away for famine duty, I cannot see any justification for not filling up the vacancies with temporary hands, short of the all sufficient one that no qualified men can be got. I am not satisfied that enquiry for competent hands has been exhaustive, and I think that orders should issue to all Executive Engineers to bring their District Staff up to the sanctioned strength so far as fit temporary hands can be found. Even if the temporary hands were not at first qualified, they would at least be in training, and on the way to become so. The difficulty of obtaining qualified extra hands is, of course, due to the fact that the demand for them only occurs at long intervals for short periods.

Men were advertised for but only 23 suitable candidates could be got and they have been appointed temporarily to take place of subordinates transferred to famine work.
D.C.

Considering what an enormous demand for extra hands might arise in the near feature, it would seem good policy to let the existing demand make itself fully known. So far as the demand operated to induce students to set to work to qualify as Overseers, its effect must be to that extent beneficial, and if no fit hands are forthcoming, Government will at least learn the true extent of its weakness.

3. The weakness, chiefly numerical, of our District organization in all Departments, its inability to meet any sudden extraordinary strain, and the difficulty of rapidly strengthening it, are the most discomforting features of the situation. As soon as the village officers are set to work to prepare against future contingencies under Chapter VI of the Famine Code, their other duties are perforce let slide, and it is useless to ask concerning the crops and cultivation. There is a similar dislocation of ordinary work in every grade, up to the sorely pressed Collector, who is too often the solitary European Revenue Official in the District, on whose narrow shoulders rests the weight of the whole machine. I have no remedy to suggest. Financial exigencies compel us to keep our establishments down at a strength which is just sufficient in times of prosperity, and in times of adversity we cannot escape the penalty.

The same remarks apply to the P.W.D.
D.C.

4. *Famine tools.*—Messrs. Oakes & Co. have about 950 mamooties and 1,000 large hammers in stock. They cannot, they say, make hammers, because no suitable steel can be procured in the local market. Messrs. Massey & Co. have about 3,000 mamooties in stock, at prices varying from Rs. 13 to Rs. 30 per dozen, and 900 pickaxes at Rs. 20 to Rs. 21-8 per dozen. They could turn out steel hammers weighing 2 lbs. and 3 lbs. at the rate of 100 per day, price Rs. 650 per 1,000 for 2 lb. hammers, and Rs. 950 for 3 lbs. There do not appear to be any other local Firms, who deal in tools, and who could be entrusted with a large contract. The Agent of the Madras Railway expressed himself able and willing to manufacture hammers in large numbers at the Railway Workshops. I have asked him and the Chief Engineer of the South Indian Railway, to state what number they could turn out per diem, and at what price. Colonel Campbell has particulars of the stock, and the productive capacity of the Public Works Department Workshops. The Superintendent is put to his wits'end to meet the enormous demand. Some of the hammers now being supplied are mere lengths of bar-iron with a hole in the middle. They are fit for children's use, but the iron is so soft that they will rapidly become unserviceable. Some hammers of chilled cast-iron, which he has made as an experiment, are admirably hard and cheap, but are brittle and liable to fracture if used sideways with great force. It is expedient that these should be subjected to a fair trial on a sufficiently large scale. When once a sufficient number of moulds are constructed, these hammers could be turned out rapidly at a small fraction of the cost of steel hammers. The danger of famine will be ever with us; and the population to be dealt with tends rapidly to increase. Government is bound to maintain a large stock of tools, and in the end I believe, it will be cheapest to provide steel hammers. The comparatively large reserves, which, we have advised, should be provided for the eight Districts, would after all not suffice for more than three per cent. of the population. I certainly think that 50,000 2 lb. hammers, and 50,000 3 lb. hammers of steel, should be obtained from England at once.

Information is given in my note.
D.C.

5. A report should be called for as to the patterns of tools, which have been found in actual use most serviceable for famine labour. We were informed at Guntakal that even the women preferred heavy 4 lb. hammers. I think a 2 lb. hammer most suitable for women and children, and a 3 lb. hammer for men; but where hard rock, in large fragments, has to be broken, a proportion of 4 lb. and 8 lb. hammers would be required.

I have already called for this report.
D.C.

6. Nearly all the mamooties in stock are of the Madras pattern, intended for a short handle parallel to the blade. The Wudders prefer this muster, but for relief workers not accustomed to their use, I should think the English form of hoe (which is the West Coast and the Bengal pattern) much better. I think the weight should not exceed 5 and 6 lbs.

7. *Instruments for clearing prickly pear.*—I do not know that there is any accepted pattern. From personal experience I advocate the following:—

(1) A combined prong and hook, with a four-foot handle of male bamboo.

(2) A double prong something like an English pitch-fork, but with the prongs closer together.

(3) A rake with eight teeth two inches apart. Invaluable for raking up young plants by the roots.

I agree.
D.C

8. *Relief works*—It is difficult to make any useful fresh remarks under this head. The subject is discussed in paras. 45—54 of Mr. Clogstoun's Report on the Famine of 1891-92. The removal of prickly pear, which forms so large a part of the Famine Programme in some districts, cannot be conveniently performed under the rules of Chapter VII of the Famine Code. If undertaken it should be on the contract system. The same remark applies to the

repair of small scattered tanks. Petty estimates for clearing out drinking-water ponds are very numerous, but where the ponds contained water, it would generally be too precious to be spared and the work could not be undertaken even on the contract system.

The clearance of silt from tank-beds is (I know not why) an operation which the Public Works Department contemns. In some of our great tanks large bodies of relief-workers might be employed upon it; but the work would be liable to awkward interruption by a sudden fall of rain.

In Zemindaris there is really no work but road-work available. One seems driven to Mr. Clogstoun's conclusion that "Work on roads will have to be more and more resorted to to give employment to famine labor, even if the work should only be useful as forming a test of the necessity of relief."

9. So far as anxious recent study of the Famine Code can acquaint a man with the proper methods of relief administration, I think we may say that we found officers of all ranks well prepared. Some of the Deputy Collectors had continued their studies far into the night prior to our arrival, and appeared, Code in hand, prepared at all points for examination.

In some places the District Revenue staff had been diligently employed, in literal obedience to the order of Government, in drawing up Village lists showing the name, caste, sex and age of the halt, the blind, the deformed, the imbecile, the insane, the deaf-mutes, and of all others who would, in the event of famine, be likely to require gratuitous relief. It may be hoped that the labor will prove to have been thrown away.

10. Since writing the above I have read Colonel Campbell's note. I agree with what he has written on the subject of tools paras. 18 to 24. I would call on all Collectors to report what supply of handles for pick-axes, mamooties and hammers, each is in a position to obtain (*a*) from his Forest Officer, (*b*) from Contractors: at what rate per thousand; and what is the shortest period within which the number quoted (whatever it is) could be made available.

Note by the Hon'ble Colonel D. McNeil Campbell, R.E., *Chief Engineer and Secretary to Government, Public Works Department.*

After careful inquiry regarding rainfall, prices and general condition of the Districts, I agree with the opinions of the Collectors and the other local officials consulted that in the event of a failure of the South-West moonsoon, there will be no distress requiring the assistance of Government except perhaps in some parts of the Nellore, North Arcot and Kistna Districts. The parts that may be affected but in which it is not anticipated there will be any acute distress are the Darsi and Podili Divisions in Nellore District, the Punganuru Zemindary and parts of the Chendragiri taluk in the North Arcot District and the upland taluks of the Kistna; the area and population of these tracts are small and no great strain will be thrown on the resources of Government should it be found necessary to adopt measures of relief. The conclusions arrived at are based mainly on the present conditions of the Districts, but all the Collectors point out that it is impossible to foretell what may be the effect of a considerable rise in prices.

2. The subject of prices is a very difficult one to deal with, and it is almost impossible to account for the great variations in different places. It seems not unlikely that if the South-West monsoon fails and it becomes generally known that Government are preparing for a famine, the prices now high will rise higher and a fictitious famine be caused in districts in which there is no scarcity of food, and I am of opinion that it is a matter for careful consideration whether Government intervention is necessary in such cases.

3. By a rise in prices caused by exportation or holding up in districts where there is plenty of stock, the producers make large profits and consequently are in a better position to support their dependents, chiefly the Agricultural labourers, than they are in ordinary seasons, but if Government start relief works, it is then the object of these producers and grain merchants to make as many as possible of these dependants (whom in ordinary years they support) go to these works, the result being that they save themselves considerable expense while at the same time nearly all the Government money spent on famine relief goes into their pockets.

4. The people most likely to suffer in the case of a fictitious famine caused by high prices are not of the agricultural classes but professional labourers and those engaged in technical trades, and the result of restricting expenditure on ordinary works is that great distress may be caused amongst these classes. This has been pointed out to me by several of the local Engineers who owing to reduction of establishment caused by men withdrawn for famine have been obliged to stop works, the result being that the labourers employed are now without means of support, and the prices being high, they must necessarily suffer considerably. I therefore think that, before starting famine relief, it should be carefully ascertained

S. P

whether the high prices are caused by actual want of food supplies or by exportation and holding up. In the former case, the intervention of Government is necessary, but in the latter case, all that seems advisable is to increase the ordinary Public Works of the District, the rates being raised in proportion to the price of food grain.

5. This subject requires the most careful consideration, for with the present facilities for exporting, it is very probable that an actual failure of crops in one district will be followed by a rise in prices in many others, and if on this occurring Government has to start famine works in each district where the prices are above the scarcity rate, the expense to the State will be very great.

6. I have stated that even should there be a failure of the South-West monsoon, the distress will not be severe, only affecting parts of three districts; but the Engineering establishments of these districts have been so reduced by withdrawals for famine in the I and III Circles that it will be impossible to find the establishment necessary to carry out relief works without stopping nearly all ordinary works which, as I have already pointed out, will cause considerable distress. I would therefore suggest that, as soon as the services of men from the Sappers and Miners, the Salt and other Departments have been obtained, 20 of the Public Works Subordinates now on famine works in the Ceded Districts should be posted to the Districts in which it may perhaps be necessary to start relief works. I think that 10 to the Kistna and 5 to each of the other two Districts Nellore and North Arcot will suffice with the help of the Local Fund establishment to carry on all relief works that may be required.

I concur.

7. The works in the programmes are ample to meet all distress that may arise before next November: by far the greater portion of the estimates are for road repairs and I would point out that all these estimates include a large sum for cartage which is not suitable for famine relief unless the lead is under a mile in which case the metal can be carried by coolies. It may be said roughly that $\frac{1}{3}$ of the estimates are for cartage and I think this item should be separated in future estimates, otherwise a wrong impression is given of the sum available for famine relief purposes.

I think t
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8. The tools, more especially stone breaking hammers, are insufficient, as will be shown further on.

Very desira
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mile of road.

9. Though there is no reason to apprehend such a calamity as a failure of the North-East monsoon, still should there be no South-West rains considerable anxiety will be felt, and it will be necessary to be prepared for the worst.

10. In the case of a wide-spread famine, that is, supposing the distress in the I and III Circles to continue and also spread to the eight Districts visited the great difficulties to contend with will be, 1st, the provision of the necessary Engineering Establishment, 2nd, the finding of suitable and useful work on which to employ famine labour. Both these difficulties can be partly met by concentrating labour on a few large works forcing the distressed persons to migrate if necessary. I cannot too strongly urge the necessity of this concentration of labour feeling assured that it will be absolutely impossible, if the famine becomes widespread, to carry on relief works on the system adopted in the Ceded Districts.

11. From the latest information received the number of coolies employed on relief works in the Ceded Districts was 305,189, and the number of works 117, giving an average of 2,600 coolies on each work. Now supposing 20 per cent. of the population of the Districts now affected and also of the eight visited to require relief, the number to be provided for would be 43,50,000 in round figures and if only 2,600 coolies were employed on each work the total number of works would be 1,679 requiring at least 14 Executive Engineers, 43 Assistant Engineers, and 1,679 Upper Subordinates, and the question is where are these to be got from?

12. It is not at all likely that the large proportion of 20 per cent. of the population will ever be employed on relief works at the same time, though it is quite possible that that proportion will be reached if the present system of opening works at the doors of the distressed villages is continued as many not in actual want will resort to them. In the great famine of 1876-77 the maximum proportion of the population relieved was as follows:—

Bellary	50·99 per cent.
Kurnool	31·24 ”
Cuddapah	21·86 ”
Anantapur	22·70 ”

In most of the other districts it was below 10 per cent. If it should happen that 20 per cent. of the population has to be employed on relief works for any length of time it will be simply impossible to find any useful work for such a large number of persons and the expenditure on famine will then be practically gratuitous relief, work whether useful or not being exacted as a test of distress.

13. I have strongly advocated the concentration of labour on large works and it remains for me to show how this can be done as far as regards the eight districts visited.

14. The Madras Railway runs through the Chingleput, North Arcot, Salem and Coimbatore Districts. The masonry works have all been built to take a double line and I believe the necessary land has been taken up for the purpose, and I would suggest that in the event of a wide-spread famine the line be doubled from Arkonam to Mettupalayam (Madras to Arkonam already doubled). The earthwork for this and the preparation of ballast would occupy a very large number of persons for a considerable period, and as there is no doubt that this line will have to be doubled eventually though it may not be required for some years to come the money would not be wasted.

15. This work would afford relief to three districts, *viz.*, North Arcot, Salem and Coimbatore and might be supplemented by the following works :—

North Arcot.

1. Clearing silt from Kaveripakkam tank bed.
2. Clearing Kaveripakkam tank supply channel.
3. Some of the largest road works.

Salem.

Some of the largest road works.

Coimbatore.

1. Bhavani Reservoir Project.
2. Extension Kalingarayan Channel.
3. Some of the largest road works.

16. In the remaining districts the following are the only works of any magnitude I can suggest :—

Kistna District.

1. Kistna River embankments.
2. Some of the larger roads.

Nellore District.

1. Supply channel from the Pennair River above Sangam to Nellore.
2. Moldevi drain.
3. Clearing silt from the Nellore tank.
4. Some of the larger roads.

Chingleput District.

1. Widening railway lines from Madras to Chingleput.
2. Some of the larger roads.

South Arcot District.

1. Extension of the Buckingham Canal.
2. Coleroon flood banks
3. Some of the largest roads.

Trichinopoly District.

1. Some of the largest roads.
2. Breaking metal at Central quarry. But the works mentioned though sufficient to give employment to all who will require relief for many months even in the event of a failure of the North-East monsoon following that of the South-West will not be enough to supply 20 per cent. of the population for any considerable period, and the only other work that I can suggest is the preparation of enormous quantities of road metal at a few central quarries near railway lines in each District. Since writing the above I have had a conversation with the Chief Engineer, South Indian Railway, and he says a large amount of famine labour might be usefully employed in breaking metal for ballast along all the South Indian lines and that it would be paid for at the rates now in force.

17. If the works could be concentrated as suggested the amount of supervision required would not be very great, and probably 8 Executive Engineers, 16 Assistant Engineers and 100 Upper Subordinates would suffice for the 8 Districts visited; but the numbers now employed on supervising works in the I and III Circles will have to be increased as the system of small works in force there cannot well be altered now, so that the total Engineering Establishment necessary to cope with a wide-spread famine would approximately be—

14 Executive Engineers.
36 Assistant Engineers.
250 Upper Subordinates.

18. The necessity, therefore, of having a list submitted of officers and subordinates in other Departments and also of Military men available is apparent as the Public Works Department cannot provide such a large amount of supervision.

Tools.

19. The famine tools now in the Presidency are altogether inadequate in the event of a severe and wide-spread famine; these numbers were laid down by the Board of Revenue in its Resolution No. 6144-M., dated 25th October 1893 andembodied in G. O. No. 3116-W., dated 2nd December 1893.

20. The number, it is suggested should be maintained and which is based on the moderate computation that if 10 per cent. of the population are employed on relief works, 1 person out of every 3 will require a tool, is as follows .—

Districts.	Stone breaking hammers.	Mamooties.	Pick axes.	Rammers.	Crowbars.	Sledge hammers.	Hand axes.	Bill hooks.	Tools for prickly pear.
Coimbatore	40,000	9,000	5,000	1,000	9,000	500	500	500	500
Salem	44,000	9,000	5,000	1,000	9,000	500	500	500	500
South Arcot	44,000	9,000	5,000	1,000	9,000	500	500	500	500
North Arcot	44,000	9,000	5,000	1,000	9,000	500	500	500	500
Kistna	22,000	4,500	2,500	500	4,500	250	250	250	250
Nellore	33,000	6,900	3,750	750	6,900	375	375	375	375
Chingleput	22,000	4,500	2,500	500	4,500	250	250	250	250
Trichinopoly	22,000	4,500	2,500	500	4,500	250	250	250	250
Total...	2,71,000	56,400	31,250	6,250	56,400	3,125	3,125	3,125	3,125

21. For Ganjam and Vizagapatam the number of tools required might be calculated in the same manner as in the case of the Districts visited, but in the case of Bellary, Anantapur, Kurnool and Cuddapah, I think the proportion should be *trebled. As regards the remaining districts no action need be taken at present. The following, therefore, represents the number of tools that I consider necessary enough to maintain in the affected Districts.

---

* This would give total tools in round figures,

Bellary	...	88,000
Kurnool	—	81,000
Anantapur	—	72,000
Cuddapah	—	1,27,000

320
383
703

Districts.	Stone breaking hammers.	Mamooties.	Pick axes.	Rammers.	Crowbars.	Sledge hammers.	Hand axes.	Bill hooks.	Prickly pear tools.
Bellary	55,000	10,000	6,000	5,000	10,000	500	500	500	500
Kurnool	50,000	10,000	5,000	5,000	9,500	500	500	500	500
Anantapur	45,000	8,000	5,000	4,000	8,000	500	500	500	500
Cuddapah	80,000	15,000	5,000	10,000	15,000	500	500	500	500
Ganjam	35,000	8,000	3,000	7,000	8,000	500	500	500	500
Vizagapatam	55,000	15,000	5,000	6,000	10,000	500	500	500	500
Total...	3,20,000	66,000	29,000	37,000	60,500	3,000	3,000	3,000	3,000

22. In addition I would propose that the following stock of tools of various descriptions be kept in the Public Works Stores to provide for wear and tear and losses:—

Stone breaking hammers ...	1,00,000	Hand axes	1,000
Mamooties	50,000	Bill hooks	1,000
Pickaxes	30,000	Prickly pear tools	1,000
Rammers	30,000	Galvanised iron chains	28
Crowbars	50,000	Jumpers	1,000
Sledge hammers	5,000	Wooden cash chests ...	300

23. The following shows the total number of tools I consider necessary :—

Hammers	6,91,000	Handaxes	7,125
Mamooties	1,72,400	Bill hooks	7,125
Pickaxes	90,250	Prickly pear tools	7,125
Rammers	73,250	Iron chanis	28
Crowbars	1,66,900	Wooden cash chests	300
Sledge hammers	11,125	Jumpers	1,000

24. The exact number of serviceable tools now in stock cannot be ascertained till the special returns called for from the Executive-Engineers have been received, but there is no doubt that a very large number will be required to be made or purchased.

25. The numbers given as necessary seem large, but when it is considered that in the 8 districts visited it only allows one tool to 1/3 of 10 per cent. of the population and to 1/3 of 30 per cent. in the Ceded Districts and makes no allowance for the remaining districts it cannot be considered excessive. The demand for stone breaking hammers is very great about 3,00,000 are now in use in the I and III Circles and indents are constantly being received for more. The division of the different description of tools required is of course somewhat arbitrary, as it is impossible to tell exactly how many of each sort will be required till the nature of the work to be done is known: but there is no doubt that a large number of stone breaking hammers will be required, and I recommend that an urgent indent for 1,00,000 be at once sent to the Secretary of State. It will perhaps be time enough to get the other tools when the result of the South-West monsoon is known.

I concur.
H.W.

26. There is considerable difficulty in fixing the most suitable weight and description of each sort of tool. The indents from the famine officers vary considerably, for instance, one officer states that he does not want hammers weighing over $1\frac{1}{2}$ lbs. another that he wants 3 lb. hammers and so on. In the case of mamooties the same difficulty is felt. There are some in the Public Works Stores weighing from 5 to 14 lbs. which latter are far too heavy and most officers say that the weight should not exceed 5 lbs. The description of mamooty has also to be decided. I would recommend that the indent on the Secretary of State for hammers should state that they are to be of steel weighing from $1\frac{1}{2}$ to 3 lbs. Further inquiries will be made from the famine Officers as to the best form and weight of mamooty.

$\frac{1}{3}$ weighing $1\frac{1}{2}$ ...
$\frac{1}{3}$ weighing 2 ...
$\frac{1}{3}$ weighing 3 ...

Handles.

27. Hearing rumours that delay had been caused by the tools being supplied without handles, I wired to the Superintending Engineer to know what were the real facts, and

---

he answered that some slight delay had been caused by tools having to be provided with handles and that he would like handles to be provided in future. I think that issuing tools provided with handles would be a mistake; in the first place the difficulty of carriage would be much increased, and in the next the provision of handles is in itself a relief work. My own experience is that there is no difficulty in making handles for tools and the opinion of most Engineers I have consulted agrees with mine: of course if a famine Officer indents for a large quantity of tools, say 20,000 hammers and waits till he receives them to supply handles there must be delay, but I consider with proper management all delay may be avoided. Frequent complaints are made about delay in the supply of baskests which wear out very quickly; baskets cannot be stored for any length of time as they get destroyed by insects very soon, and as their manufacture gives employment to local labour, I do not think it advisable that they should be supplied from outside.

28. The famine tools in the Public Works Workshops, Madras, were inspected by Mr. Winterbotham and myself on the 18th Instant in the presence of Mr. Moss the General Superintendent.

29. The number of tools now in store is as per margin. This is altogether insufficient and the Superintending Engineer is preparing an indent for more. Very large quantities of tools have been issued to the famine districts, the number of stone breaking hammers and rammers alone amounting to 2,09,239 and 23,561 respectively. Indents for hammers were received faster than they could be complied with, and the General Superintendent had to have recourse to the local bazaars, and purchased some wrought iron ones at 2 annas 6 pies per lb. These are of most inferior quality and are simply formed by cutting a round bar of iron into small lengths, flattening out their lengths and drilling a hole through the middle. I am of opinion these hammers will not last more than a few weeks. Hammers are also being made in the Workshops both of wrought iron and chilled cast iron, and they can be turned out at the rate of about 2,000 a day. The former are not tipped with steel and are somewhat poor though far superior to those bought in the bazaar; the cost annas 2 and pies 3 per lb.

Pick axes ...	4.055
Felling axes ...	4,368
Crow bars ...	245
Hand hammers ...	958
Bill hooks ...	3,073
Mamooties ...	16,239
Iron rammers ...	322
Quarry picks ...	3,768

30. The chilled cast iron hammers cost 1 anna per lb. and seem excellent and can be turned out faster than any of the other descriptions. The Famine Officers have been asked by wire to report on these hammers but no answer has been received. The number of hammers required in the famine districts is so great that the Workshops cannot keep pace with the demands. Enquiries have therefore been made from Messrs. Oakes & Co. and Messrs. Massey & Co. Mr. Winterbotham has received an answer from the latter firm but not from the former. Enquiry is also being made as to whether the Railway Workshops at Perambur and Negapatam will undertake to turn out hammers, and if so, how many.

31. The mamooties in store were of various weights, many of them being as much as 14 lbs. which I consider useless for famine purposes, five or six lbs. seem as heavy as desirable.

Note by the same Officer, dated 7th July 1897.

Since the despatch of my note dated 29th June 1897, intimation has been received by Mr. Winterbotham from the Agent and Manager of the Madras Railway Company that stone breaking hammers can be made at the Railway Workshops, Perambore, for the purpose of famine relief and that they can be turned out at the rate of from 600 to 800 a day at a cost of Rs. 35 per 100. I have seen a sample hammer and it weighs $2\frac{1}{2}$ lbs. and is I consider suitable for relief purposes.

2. As the Public Works Workshops are at present unable to meet the demand for hammers and consequently have to purchase inferior articles in the bazaar, I think it would be well if the Railway Branch be directed to thank the Madras Railway Company for their offer and ask them to manufacture 50,000 hammers weighing $2\frac{1}{2}$ lbs. of the pattern supplied to Mr. Winterbotham as soon as possible. The cost will be Rs. 17,500.

No. 742—D, dated 7th July 1897.

Forwarded to the Revenue Department in continuation of letter No.K, dated 5th July 1897.

(Signed) D. McNEIL CAMPBELL, Colonel, R.E.,
Secretary to Government.

Order—No. 604, dated 21st July 1897.

The Government will await the reports called for by the Chief Engineer as to the patterns of tools which have been found in actual use most serviceable for famine labourer and as to the exact number of serviceable tools now in stock, before passing orders on the proposals in the notes read above for the supply of famine tools to the 14 districts dealt with therein and for the maintenance of a reserve stock. As, however, the need for stone breaking hammers is urgent, the Consulting Engineer for Railways will be requested to arrange immediately with the Madras Railway Company for the manufacture of 50,000 hammers of the pattern supplied, on the terms specified in the letter of the Agent and Manager to Mr. Winterbotham. An urgent indent will also be made by telegram on the Right Hon'ble the Secretary of State for 90,000 steel hammers :—30,000 of 1½ lbs. weight, 30,000 of 2 lbs. and 30,000 of 2½ lbs. as recommended by the Chief Engineer. The Board of Revenue will be requested to submit at once a formal indent in quadruplicate for transmission to the Secretary of State.

2. As regards the chilled iron hammers now turned out by the Public Works Workshops the Government is of opinion that they should be subjected to trial on a sufficiently large scale before the present method of manufacture can be finally approved. The Chief Engineer should take immediate steps to have the trials carried out.

3. The Government concurs in the remarks in paragraph 26 of the Chief Engineer's note in regard to baskets and handles for tools. Collectors will accordingly be called upon to report as early as practicable what supply of handles each is in a position to obtain and at what cost. (Paragraph 10 of Mr. Winterbotham's note.)

4. The attention of the Board of Revenue will be drawn to the remarks in paragraph 7 of the Chief Engineer's note as to the cost of cartage included in the estimates for road repairs. Collectors should be instructed to separate the amounts provided for cartage in the estimates of works and to show in their programmes in future only the amounts available for expenditure on famine labour.

5. The Government has already accepted the proposal referred to in paragraph 13 of the Chief Engineer's note to concentrate famine labour on large works, and has called upon the Board of Revenue to report the extent to which this can be done and to direct Collectors to have estimates for such works prepared immediately. (*Vide* G.O., No. 314, dated 11th May 1897.) In regard to paragraph 16 of the Chief Engineer's note, the Government does not understand why it is considered that this concentration cannot be given effect to in the districts already affected; the Famine Commissioner will be requested to state his views in the matter and to report what steps have been taken to give effect to the order of the 11th May. The Consulting Engineer for Railways will be requested to ascertain whether the doubling of the Madras Railway referred to in paragraph 14 is likely to be available for famine relief this year and, if not, whether the preparations for the work could be pushed forward so as to make it available for the purpose in the near future.

6. Orders have already been issued in the sense suggested in paragraph 17 of the Chief Engineer's note. The Government approves the suggestion in paragraph 6 that twenty of the Public Works subordinates now on famine works in the Ceded districts be posted to the districts in which it may become necessary to start relief works, but is not prepared to give effect to the suggestion at once. Meanwhile the Chief Engineer may warn the men whom he proposes to withdraw from the affected districts to be ready for duty elsewhere.

7. With reference to the Chief Engineer's remarks in paragraphs 2—5 of his note the Government while admitting that the knowledge that preparations are being made to meet a famine may cause a panic and a further rise of prices, does not consider that it would be practicable to ascertain with any degree of accuracy to which of the causes enumerated the rise of prices in any district is due. Further a rise to the scarcity rates is only one of the indications of distress, and in their recommendations for the opening of relief works, District officers are also guided by the consideration whether employment is still available in the fields and elsewhere or not. The number of permanent farm labourers whom the producers are bound to support all the year round is small in comparison with the number of labourers engaged monthly or daily for the season; and a rise to the scarcity rates, whatever the cause may be, combined with a failure of the sources of employment ordinarily available, must produce distress among the latter who form the vast majority of labourers.

8. The Government fully concurs in the remarks in paragraphs 1—3 of Mr. Winterbotham's note as to the insufficiency of the present scale of district establishments in all departments of the administration to meet any sudden extraordinary strain. The question is however, too large a one to be dealt with on the present occasion; the subject will be fully considered when the Government comes to review the relief operations of the year on the cessation of distress.

9. In conclusion, the Government desires to thank Mr. Winterbotham and Colonel Campbell for the efficient and satisfactory manner in which they have discharged the duties entrusted to them; the reports of these officers on the eight districts visited by them have been full and exhaustive and the results of their tour most informing and useful. The tour has also had the effect of putting on their guard, the officers of all the districts likely to be affected in case of the eventual failure of the monsoon.

(True Extract.)

G. Stokes

Ag. Secretary to Government.

To

The Famine Commissioner.
,, Public Works Department, (W.) Sent in ms.
,, ,, ,, (I.)
,, ,, ,, (R.)
,, Financial Department.
,, Public Department.
,, Local and Municipal Department.
,, Board of Revenue, Revenue Settlement.
,, ,, Land Revenue.
,, Collector of Coimbatore.
,, ,, Salem.
,, ,, Chingleput.
,, ,, North Arcot.
,, ,, Nellore.
,, ,, Kistna.
,, ,, South Arcot.
,, ,, Trichinopoly.
Collectors of affected Districts.
The Hon. Col. D. McNeil Campbell, R.E.
H. M. Winterbotham, Esq., I.C.S.

250 Copies.

Public Works (1897) Department.

CURRENT No.

From The Revenue Dept.

Endorsement

Order G.O. No. 2228 W dated 16-8-97

Press No. 604

Dated 21st July 97

Received
Registered } 24-7-97

Enclosures

Spare copies

SUBJECT.

Passing orders on the final reports submitted by the Chief Engineer, P.W.D. & the third member of the Board of Rev. re: supply of the famine tools etc of the districts jointly visited by them & expressing the thanks of Govt. to these officers for the efficient & satisfactory manner in which they have discharged the duties entrusted to them.

Registered by me on the 26-7-97

O.S.
5-2

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

Revenue Department.

Proceedings of the Madras Government.

[illegible] sent to Rev Dept on 5.7.97

Read joint report from the Hon'ble Col.D.McNeil Campbell and H.M.Winterbotham Esqr dated 5th July 1897 No.K submitting separate notes by 3rd Member, Board of Revenue and Chief Engineer and Secretary to Govt.P.W.D.embodying the general remarks which each wishes to make in connection with the 8 joint reports which they have already submitted on Famine Relief Works estimates and Famine tools etc.

Read also note by the Chief Engineer,P.W.Dept.No.742D dated 7th July 1897 suggesting that the Agent and Manager Madras Railway Co.may be requested to manufacture 50,000 stone breaking hammers weighing 2 1/2 lbs.each of the pattern supplie to Mr.Winterbotham.

Order.No.604 dated 21st July 1897.

Para 25 of report (1)
Para 23 of note (2)

The Govt.will await the reports called (1) for by the Chief Engineer as to the patterns of tools which have been found in actual use most serviceable for famine labourer and as to the exact number (2) of serviceable tools now in stock,before passing orders on the proposals in the notes read above for the supply of famine tools to the 14 distric dealt with therein and for the maintenance of a reserve stock.As,however,the need for stone-breaking hammers is urgent,the Consulting Engineer for Railways will be requeste to arrange immediately with the Madras Ry.Co.for the manufacture of 50,000 hammers of the pattern supplied on the term specified in the letter of the Agent and Manager to Mr.Winterbotham.An urgent indent ~~indent~~ will also be made by telegram on the Right Hon'ble the Secretary of State for 90000 steel-hammers-- 30,000 of 1 1/2 lbs. weight,30,000 of 2 lbs and 30,000 of 2 1/2 lbs. --as recommended by the Chief Engineer.The Board of Revenue will be requested to submit urgently a formal indent in quadruplicate for transmission to the Secretary of State.

2. As regards the chilled iron hammers now turned out by the P.W.Workshops the Govt.is of opinion that they should be subjected to trial on a sufficiently large scale before the present method of manufacture can be finally approved.The Chief Engineer should take immediate steps to have the trials carried out.

Order para 2
rep. C.E. note
Tel. issued
accordingly

3. The Govt.concurs in the remarks in para 26 of the Chief Engineer's note in regard to baskets and handles for tools,and Collectors will accordingly be called upon to report as early as practicable what supply of handles each is in a position to obtain and at what cost.(Para 10 of Mr.Winterbotham's note.)

4. The attention of the Board of Revenue will be drawn to the remarks in para.7 of the Chief Engineer's note in regard to the cost of cartage included in the estimates for road repairs.Collectors should be instructed to separate the amounts provided for cartage from the estimates of works and to show in their programmes in future only the amounts available for expenditure on famine labour.

5. The Govt.has already accepted the suggestion referred to in para.13 of the Chief Engineer's note to concentrate famine labour on large works,and has called upon the Board of Revenue to report the extent to which this can be done and to direct Collectors to have estimates for such works prepared immediately.(vide G.O.314 dated 11th May 1897.)In regard to para.16 of the Chief Engineer's note,the Govt.does not understand why it is considered that this concentration cannot be given effect to in the districts already affected; the Famine Commissioner will be requested to state his views in the matter and report what steps have been taken to give effect to the order of the 11th May.The Consulting Engineer for Railways will be requested to ascertain whether the doubling of the Madras Railway referred to in para.14 is likely to be availa-

ble for famine relief this year and, if not, whether the preparations for the work could be pushed forward so as to make it available for the purpose in the near future.

6. Orders have already issued in the sense suggested in para.17 of the Chief Engineer's note. The Govt. approves the suggestion in para.6 that 20 of the P.W. subordinates now on famine works in the Ceded districts be posted to the districts in which it may become necessary to start relief work but is not prepared to give effect to the suggestion at once. Meanwhile the Chief Engineer may warn the men whom he proposes to withdraw from the affected districts to be ready for duty elsewhere.

Instructed by Govt. for further action
26 July 97

Action taken on the 26 instant

7. With reference to the Chief Engineer's remarks in paras.2-5 of his note the Govt., while admitting that the knowledge that it is preparing for a famine may cause a panic and a further rise of prices, does not consider that it would be practicable to ascertain with any degree of accuracy to which of the causes enumerated the rise of prices in any district is due. Further a rise to the scarcity rates is only one of the indications ~~for the opening of relief works~~ of distress, and in their recommendations for the opening of relief works District officers are also guided by the consideration whether employment is still available in the fields and elsewhere or not. The number of permanent famine labourers whom the producers are bound to support all the year round is small in comparison with the number of labourers engaged monthly or daily for the season; and a rise to the scarcity rates, whatever the cause may be, combined with a failure of the sources of employment ordinarily available, must produce distress among the latter who form the vast majority of labourers.

8. The Govt. fully concurs in the remarks in paras.1-3 of Mr. Winterbotham's note as to the insufficiency of the present scale of district establishments in all depts. of

administration to meet any sudden extraordinary strain. The question is however too large a one to be dealt with on the present occasion; the subject will be fully considered when the Govt. comes to review the relief operations of the year on the cessation of distress.

9. In conclusion the Govt. desires to thank Mr. Winterbotham and Col. Campbell for the efficient and satisfactory manner in which they have discharged the duties entrusted to them, the report of these officers on the eight districts visited by them have been full and exhaustive and the results of their tour most informing and useful. The tour has also had the effect of putting on their guard the officers of all the districts likely to be affected in case of the eventual failure of the monsoon.

(True Extract.)

Ag. Secy. to Govt.

To the Famine Commissioner.
.. P.W. Dept. W.
.. .. I.
.. .. R.
.. Financial Dept.
.. Public Dept.
.. L. & M. Dept.
.. Board of Revenue, Rev. Sett.
.. .. Land Revenue.
.. Collectors of certain districts.

~~His Excellency the Governor~~

P. W. DEPARTMENT.

H.E.
Copies

Famine Tools

READ the following:—

Note by the Chief Engineer P. W. D dated 9th August 1897

FOR ORDERS.

The papers should be sent to the Rev. Dept. for remarks.

A.S.H
9.8.97

9/8/97
W

To
The Secretary to Govt.
Rev. Dept.
For favour of
remarks—

10/8/97
W

See my Notes within

ASH
13.8.97

I agree on all points with H.E.
JG
18/8/97

43—500-22-1-96.

H.W. 14.8.97 R 18.8.97
7d H.E. 9.8.97 R 10.8.97 H.E. 11.8.97 R 14.8.97

FOR ORDERS.

G.O. No. 604 Rev.(d) 21-7-97

Public Works Department.

Office Note to the Secretary to Govt., Revenue Dept., No. 311 D. dated 22nd May 1897.

G.O. No. 3902, Revenue, dated 27th July 1897.

Proceedings of the Board of Revenue (Rev. Sett., &c.) No. 5784 Mis. dated 26th July 1897.

Endt. thereon in the Rev. Dept., R. No. 1441 dated 29th July 1897.

Pros. of the Board of Revenue (Rev. Sett., &c.) No. 5962 Mis. dated 30th July 1897.

Endt. thereon in the Rev. Dept., R. No. 1470 dated 3rd August 1897.

Pros. of the Board of Revenue (Rev. Sett., &c.) No. 5976 Mis. dated 31st July 1897.

Endt. thereon in the Rev. Dept. No. 4040 dated 4th August 1897.

Telegram from the Secretary of State dated 31st July 1897.

Endt. thereon in the Rev. Dept. Mis. No. 4080 dated 5th August 1897.

Print Note by the Chief Engineer, P. W. D. dated 9th August 1897.

Print

The General Superintendent, P. W. Workshops reports that the indents from the famine districts have all been complied with and that he has received information that the chilled cast iron hammers made at the Shops are satisfactory.

2. I sometime ago wired to the Suptg. Engineer III Circle for a report on these hammers and expect a reply shortly.

3. The Superintendent, P. W. Workshops, also reports that he has 3,000 hammers in stock and that he can turn out daily 1,000 chilled cast iron hammers, and on emergency 3,000, and 500 steel faced hammers.

hammers. Taking into consideration that there are no more indents from the famine districts to be complied with, that 90,000 hammers have been indented for on the Secretary of State and 50,000 ordered from the Madras Railway Company, I do not think it is necessary to enter into a contract with C. A. R. Aiyar of Trichinopoly. It must further be remembered that C. A. R. Aiyar have 20,000 hammers ready which can be purchased at once if thought necessary, and also that as famine seems to be dying out in other parts of India and tools can probably be obtained from those parts. I have however examined the sample hammers received from C. A. R. Aiyar and am of opinion that if it is decided to enter into a contract with them it should be for the steel faced hammers at 5½ as per lb

Not necessary to enter into the contract

4. I think there is little doubt but that the report of the Suptg. Engineer III Circle on the chilled cast iron hammers will be favourable, and as these can be turned out at the rate of 3,000 a day (at a cost of only 1 anna per lb), it will be possible for the Shops to manufacture about 2,40,000 of these hammers besides 40,000 wrought iron ones by the 15th November.

5. In my note dated 29th June 1897, No. 658 D., I gave the number of stone breaking hammers I considered necessary in the event of the famine becoming

widespread

[illegible] 2

widespread at . . . . . 6,91,000.

The number in stock and serviceable is . . . . . ~~2,88,834~~ 2,88,794

So the balance required is . . . . ~~4,02,166.~~ 402,206

The number indented for on Secretary of State is 90,000

Ordered from Railway Company. 50,000 1,40,000

So the balance required is ~~4,02,166~~ 402,206 — 1,40,000 or ~~2,62,166,~~ 262,206 and these can be made on emergency in the Workshops by 15th November: but it is almost impossible that such a large number will be required by such an early date. Should hammers be required on emergency the following numbers can be made locally:-

	daily
P. W. Workshops	3,000 chilled cast iron. 500 steel faced hammers.
Madras Railway.	700 about.
Messrs. C. A. R. Aiyar and Co.	130 about.
Messrs. Massey & Co.	100
	4430

6. It is worth considering whether it is now necessary to submit the indent for 90,000 hammers to the Secretary of State. When I made the proposal the numbers on relief works were increasing rapidly and the demand for hammers was greater than could be met; but it is now 6 weeks since then, and circumstances have altered; but on this point the Revenue

Dept.

Department is in a better position to give an opinion with reference to the state of the season up to date, than I am; but I think the Superintendent, P. W. Workshops, should be ordered to make 1,000 chilled cast iron hammers and 500 steel faced hammers daily till further order, or till the full number of hammers in stock in the Presidency is 6,91,000. The number of chilled cast iron hammers turned out can be increased to 3,000 daily at any time; but as this interferes with the ordinary work of the Shops I do not think more than 1,000 daily should be ordered at present.

This should suffice. This number may be turned out daily until further orders.

A.G.H.

7. I request definite instructions as to whether the Revenue or the P. W. Department is to make arrangements for the supply of tools. At present the work seems to be being done by both - for instance, the Revenue Department have called on Collectors to submit their requirements as regards tools, while I have called on Suptg. Engineers for the same information, and this is likely to cause confusion.

8. If the work is to be done by the Board of Revenue, it will be advisable for me to hand over to it the information I have obtained from the famine officers regarding the most suitable

description

D°

description and weight of the several tools now used on famine works.

9. Since writing this note, the telegram regarding the supply of hammers received from the Secretary of State has been forwarded to me, and with reference to it I would suggest that a reply be sent requesting that such hamers as have been made should be forwarded at once, but that the balance of the indent need not be complied with at present. From the Secretary of State's telegram it seems that no reliance can be placed on getting tools from England on emergency: for apparently it takes longer to get 90,000 hammers made through the Agency of the India Office than the same number could be made by the Madras Railway Company. I ~~am~~ was under the impression that 90,000 hammers could be obtained in England in a few weeks, but this does not seem to be the case. If the S. W. monsoon had failed, the ~~indent on~~ tools from the Secretary of State would have been ~~useless.~~ received so late as to be of little use.

9/8/97

E. W.

This reply should be sent by telegraph to the Sec. of State.

A.G.H.

Telegram despatched 13 Aug 97

R.S.

Stop here

1- In regard to ordering a supply of tools Col Campbell seems, so far as the information in this Dept goes, to be right in thinking sent to print

it wd. be better to postpone getting hammers from England as proposed in para 9 of the note; and also in holding that our reserve shd. be raised steadily from time to time. Though the season is not assured in parts of Kurnool, Bellary, Anantapur and Cuddapah it is much more so in Ganjam & Vizag. The weather telegrams show much improvement in the north of India. No very sudden emergency is likely to arise here and we can either make or obtain sufficient tools.

Yes. ASH

Yes. ASH

2. With reference to para 7. it seems best that the maintaining & custody & provision of tools shd. as hitherto be in the D.P.W. The orders+ are that the Collr. is responsible for seeing that a sufficient number of tools is provided for his district and this involves that he shd. either see or prepare the indents. Any indents to be received in this Dept. will be made over to the D.P.W.

+ G.O. No 481. Rev: 21st June 97.

10.8.97.

Note by the Chief Engineer and Secretary to Government, P.W.D.

In the last sentence of his note, the the Revenue Secretary says that "the Collector is responsible for seeing that a sufficient number of tools is provided for his District and this involves that he should either see or prepare the indents". The responsibility for provision of tools is thus removed from the P.W.D. to the Revenue Department. If this be so, I cannot see why the indents when received in the Secretariat should, as proposed be transferred from the Revenue to the P.W. Department; but if they are so transferred, it should, I think, be distinctly laid down that the Chief Engineer has no responsibility in regard to them, and that he is only required to deal with them as Secretary to Government.

2. If, however, on the other hand, I am to be the professional adviser of Government in the matter of the provision of tools, then I would prefer to rely on my own subordinates, and not on Collectors, for local information as to the requirements of Public Works.

3. I have already proposed a scale of tools as a reserve for famine requirements; but if the intention is that Collectors should fix the scale, my intervention has perhaps been superfluous, and I should take no further steps

---

In regard to this point, namely, the responsibility for ordering the Tools, taking care of them and settling the number required, G.O. No. 481, Rev. dated 21st June 1897, should be adhered to. [The responsibility previous to periods of famine will rest with the C.E. and the P.W.D. Suggestions or requests made by Collectors at other than famine times should be duly considered; and during a famine should be promptly complied with.]

ASH

13.8.97

HD 17/8/97

Sent to print

steps in the matter. I solicit orders on this point.

4. My opinion is that the arrangement sketched by the Revenue Secretary involves a dual control which is not likely to work well in practice, and I would therefore ask the Government to reconsider it.

J. H. W. Campbell Colonel, R.E.,
C.E. & Secretary to Government, P.W.D.

---

flagged A

Telegram from the Secretary of State
of 31 July 1897

"Your telegram of 21 July last.
Hammers for Famine Relief Work
have been ordered. Supply
will commence reach Madra
by the end of Septembe
It will be completed by the
end of December. Please
telegraph if full ninety thousa
wanted now. Rain has fallen
where most wanted".

C.R.
4/8/97

Urgent.

P. W.

~~Revenue~~ (1897) Department.

1

2

3

CURRENT No. ~~6613~~ 8831

Endt No. mis. 4080 d/5th Aug. 97.

Transferred to the P.W.D.

SECY. GOVT. MADRAS
5 AUG 97
REV. DEPT.

R ~~9-8-97~~

RS
5-8-97

Ag: Secretary to Govt.
5/8/97

From

H. A. Sim Esqre I.C.S.
Ag Private Secretary to
H.E. the Governor.

No.

for Orders

RS
4-8-97

Dated 2nd August 1897

Received ~~3-8-97~~

Registered 2-9-97

Enclosures 1

Spare copies.

SUBJECT.

Transfers a telegram dated 31st July 1897 from the Secretary of State for India.

By order

Ag Private Secretary

OS
70

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

R.S.

Code Class. OAS **INDIAN TELEGRAPHS.** Monthly Number. 2324

To (Office) Ootacamund				From (Office) London	
Words. 36	Day. 31	Hour. 2	Minute. 36	Official Instructions.	for Thn TC Readd dns Rtf As two dns twelve.
To (Person) Vacillet- madras				From (Person)	

Cinximus Solano
Hammers for
Condepse Erotylus
Supply Loquitio
Rebell Madras
Odoramen September
Ludivago Completed
Odoramen December
Assequor full
Telino wanted
now Subnatat

64 Word Form.

Recd. from LN. Sent to LN.
At Hrs. Mts. by At Hrs. Mts. by

OOTACAMUND 31-7-97

J. Macc for Telegraph Master

C G P—No. 304 T—28 8 95—40,00000.

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Am 4/8/97

OS 68

P.W. ~~Revenue~~ (1897) Department.

CURRENT No. ~~6526~~ 8830

Rd 6-8-97

From The Board of Revenue
Rev. Settl. &c

~~Order~~ Endt. Mis. no. 4040 d/ 4th Aug. '97.

Transferred to the P.W. Dept with copy of telegram to the Secretary of State dated 21st July 1897.

Ag. Secy. to Govt.

To
The P.W. Department

No. 5976 mis.

Dated 31st ~~July~~ 1897
Received ~~2-8-97~~
Registered 2-9-97
Enclosures ~~4~~ 6
Spare copies

SUBJECT.

Submitting to Governme
indent in quadruplicate for s
breaking steel hammers an
explaining the present need
for the indent.

Ren
4/8/97

o/s
68

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Copy of telegram sent to the Right Hon'ble the Secretary of State for India, London, on the 21st July 1897.

Demand for famine tools increased enormously of late owing to increase of distress stock in hand of tools nearly exhausted. Local supplies utterly insufficient. Monsoon so far unsatisfactory in parts and there is a possibility of distress intensifying and extending. A very early supply is requested of stone-breaking hammers 30,000 each of 1 1/2 lb weight, 30,000, 2 lbs, 30,000, 2 1/2 lbs.

(True Copy.)

G. Stokes.

Ag. Secretary to Government.

Mue
[illegible]/6/97.

OWE.1
8830(57)

Indent for Articles on the Secretary of State for India

Name of article	Revenue to which Cost is chargeable (Imperial, Provincial, Local or Berar)	Imperial head of account or grant to which chargeable	Established proportion	How established proportion is calculated	Number or quantity in Store on 25th March 1897	Number or quantity due on previous indents	Number or quantity now indented for	Rate	Value: Of number or quantity due on previous indents	Value: Of number or quantity now indented for	Remarks	Shipped or under provision	Proposed to be provided	Remarks by the Director-General of Stores
1	2	3	4	5	6	7	8	9	10	11	12	12	13	14
Stone-breaking Steel-hammers	Provincial	"	"	"	138,496	"	(a) 30,000 of 1½ lb weight (b) 30,000 of 2 lb " (c) 30,000 of 2½ lb "	£. sh. d. (a) 725-..-.. (b) 815-12-6 (c) 996-17-6 2537-10-..	"	Not known	The articles are urgently required for supply to Famine Labourers			
			Add 10% for freight &c					253-15-..						
						Total	90,000	2791-5-..						

J.H.W. Campbell Colonel R.E.
Secretary to Govt P.T.O

R.V. Srinivasayyar
Secretary

31-7-57

Indent on England for Stores required for the Public Works Department in the Province of Madras for the service of the Indian Govt:

I hereby certify that the stores enumerated in this Indent are absolutely required for the service of the Public Works Department. They cannot be procured locally to the number urgently required or from surplus stores of other Divisions, Railways and Administrations.

Dated this 7th day of July 1897.

D. McW. Campbell Colonel R.E.

Secretary to Govt P.W.D.

I certify that funds to meet the outlay which it is estimated will be incurred in England in connection with this indent during the year 18 . . .

Examiner of P.W. Acco

P.W.S.2
8830 (97)

Original

Indent for Articles On the Secretary of State for India

Name of articles	Revenue to which Cost is chargeable (Imperial Provincial, Local or Berar)	Imperial head of account or grant to which chargeable	Established proportion	How established proportion is Calculated	Number or quantity in Store on 25th March 1897	Number or quantity due on previous indents	Number or quantity now indented for	Rate	Value: Of number or quantity due on previous indents	Value: Of number or quantity now indented for	Remarks	Shipped or under provision	Proposed to be provided	Remarks by the Director-General of the Stores
1	2	3	4	5	6	7	8	9	10		11	12	13	14
Stone breaking Steel-hammers	Provincial	"	"	"	138496	"	(a) 30,000 of 1½ lbs weight (b) 30,000 of 2 " " (c) 30,000 of 2½ " "	£. s. d. (a) 725-..-.. (b) 815-12-6 (c) 996-17-6 2537-10-..	Not known		The articles are urgently required for supply to Famine labourers			
		Add 10 o/o for freight &c				–	–	253-15-..						
						Total	90,000	£2791-5-..						

D. McW. Campbell Colonel R.E.

Secretary to Govt.

R. V. Srinivasan

Secretary

Entd 31-7-97

Indent on England for Stores required for the Public Works Department in the Province of Madras for the service of the Indian Govt.

I hereby certify that the stores enumerated in the this Indent are absolutely required for the service of the Public Works Department. They cannot be procured locally to the number urgently required or from Surplus Stores of other Divisions, Railways and Administrations.

Dated this 7th day of July 1897

D. McL. Campbell Colonel R.E.

Secretary to Govt. P.W.D.

I certify that funds to meet the outlay which it is estimated will be incurred in England in connection with this indent during the year 18

Examiner of P.W. Accounts

PWS.3
8830(97)

Indent for Articles on the Secretary of State for India

Duplicate

Name of article	Revenue to which Cost is chargeable (Imperial Provincial, Local or Board)	Imperial head of account or grant to which chargeable	Established proportion	How established proportion is Calculated	Number or quantity in Stores on 25th March 1897	Number or quantity due on previous indents	Number or quantity now indented for	Rate	Value: Of number or quantity due on previous indents	Value: Of number or quantity now indented for	Remarks	Shipped or under provision	Proposed to be provided	Remarks by the Director-General of Stores
1	2	3	4	5	6	7	8	9	10		11	12	13	14
Stone-breaking Steel hammers	Provincial	"	"	"	138,496	"	90000 {(a)30,000 of 1½ lb weight (b)30,000 of 2 " " (c)30,000 of 2½ " "	£ Sh d (a) 725-..-.. (b) 815-12-6 (c) 996-17-6 2537-10-..	Not Known		The articles are urgently required for supply to Famine Labourers			
Add 10 % for freight &c - - -								253-15-..						
Total								£2791-5-..						

D. McL. Campbell Colonel R.E.

Secretary to Govt.

P.T.O.

R.V. Srinivasan

Secretary

Indent on England for Stores required for the Public Works Department in the Province of Madras for the service of the Indian Govt.

I hereby certify that the stores enumerated in this Indent are absolutely required for the service of the Public Works Department. They cannot be procured locally to the number urgently required or from surplus stores of other Divisions, Railways and Administrations.

Dated this 7th day of July 1897

G. A. W. Campbell Colonel R.E.
Secretary to Govt. P.W.D.

I certify that funds to meet the outlay which it is estimated will be incurred in England in connection with this indent during the year 18.

Examiner of P.W. Accounts

PWE
8830 / 97

Article On the Secretary of State for India

Name of article	Revenue to which cost is chargeable (Imperial, Provincial, Local or Beerar)	Imperial head of account or grant to which chargeable	Established proportion	How established proportion is calculated	Number or quantity in store on 25th March 1897	Number or quantity due on previous indents	Number or quantity now indented for	Rate	Value		Remarks	Shipped or under provision	Proposed to be provided	Remarks by the Director General of Stores
									Of number or quantity due on previous indents	Of number or quantity now indented for				
1	2	3	4	5	6	7	8	9	10		11	12	13	14
Stone-breaking Steel-hammers	Provincial	.	.	.	138,496	.	(a) 30,000 of 1½ weight	£ s. d (a) 725-..-..	Not Known		The articles are urgently required for supply to famine labourers.			
							(b) 30,000 of 2	(b) 815-12-6						
							(c) 30,000 of 2½	(c) 996-17-6						
								2537-10-..						
		Add 10% for freight &c						253-15-..						
						Total	90000	£2791-5-..						

G. A. W. Campbell Colonel R.E.
Secretary to Govt.

R. V. Srinivasan
Secretary

Indent on England for Stores required for the Public Works Department in the Province of Madras for the service of the Indian Govt.

I hereby certify that the stores enumerated in this Indent are absolutely required for the service of the Public Works Department. They cannot be procured locally to the number urgently required or from surplus stores of other Divisions, Railways and Administrations.

Dated this 7th day of July 1897

Colonel R.E.

Secretary to Govt. P.W.D.

I certify that funds to meet the outlay which it is estimated will be incurred in England in connection with this indent during the year 98.

Examiner of P.W. Accts

P.W.S.S.
8830/97

(Sett. 22—2,000—11-8-97.)

Proceedings of the Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

Dated 31st July 1897.

No. 5976 mis

READ Government Order, Revenue, dated 21st July 1897 No. 604. Press.

Resolution

The indent in quadruplica[illegible] called for in para 1 of Governme[illegible] order Revenue No. 604 dated 21st July 1897 is herewith submitte[illegible]

2 The articles are not procurable locally to the number urgently required; and hence the need for this indent

(True Extract)

R.V. Srinivasan
Secretary

To
The Secretary to Government,
Revenue Department

Exd
31-7-97

PWE.6
8898/97

Public Works
~~Revenue~~ (1897) Department.

CURRENT No. ~~152~~ 8829
Rd ~~4-8-97~~

SECY. GOVT. MADRAS
3 AUG 97
REV. DEPT.

S

1847/8/97

From

The Board of Revenue
Rev: Sett: L R & Agri:
Madras.

No. 5962 Mis:

Dated 30: July 1897.
Received ~~2. 8. 97~~
Registered 2. 9. 97
Enclosures 1
Spare copies

~~**Order**~~ Endt R No. 1470 d/3rd Aug. 97

Transferred to the P.W. Dept in continuation of Endorsements No. 3902 Mis / 27. 7-97 & 1441 R / 29. 7-97.

G. Stokes.
Ag: Secy to Govt.

RS
3-8-97

Lie over with the previous papers.

4/8/97
W

OS
66.

SUBJECT.

Submitting to Government with remarks letter from Messrs: C. A. R Ayer & Co informing that they can supply on indent 15 to 20,000 hammers of local manufacture at once.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

(Sett. 22—2,000—11-8-17)

Proceedings of the Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

Dated 30th July 1897.

No. 5962 Mis:

READ the following letter from C. A. Rayer & C
General merchants &c, Teppakolam,
Trichinopoly Fort, dated 27th July
1897 No: B.7. $\frac{335}{L.476}$:—

At the request of our representa
Mr. Ramachandra, we have the honor
state, that we can supply to the Gove
ment 15 to 20,000 Stonebreakers' hamm
of local manufacture at once sim
to the samples forwarded to you alre

Considering that the Government
will, in all probability, be able to pl
an order with us for 50,000 hamm
we now beg to reduce the rates a
follows:-

Steel hammers at Rs 0-7-0 per lb.
Steel faced at Rs 0-5-6 per lb.
Malleable iron at Rs 0-2-9 per lb.

The above rates are very near to y

pectations. We could supply the
alance at the rate of 1000 hammers
week.

Thanking you for this kind proof
confidence, we beg leave to assure
ou, that we shall act strictly according
your instructions; to cultivate which
othing shall be wanting on our
arts.

Resolution

ubmitted to Government in continua
ion of Board's Proceedings No: 5784 dated
h Current.

GO 1441 R
29-7-97

2. In Board's Proceedings No: 5622
ated 21st instant it was reported
at the Firm had agreed to supply
steel, steel faced, & malleable
n hammers at the rate of 8-6 & 3
nnas per pound respectively.

in (V. 3902
22-7-97

the letter read above the Firm
ates that it can supply the above
ls at the reduced rates of 7, 5½
d 2¾ annas per pound if
ernment is likely to indent for
large number.

(True copy & Extract)

R. V. Srinivasa

Secretary

To Secretary to Government, Rev: Deptt.

OWS 1
8829-7-97

Public Works

~~Revenue~~ (1897) Department.

8828

CURRENT No.

28 JUL 97
REV. DEPT.

From

The Board of Revenue
Revenue Settlement
Land Records and
Agriculture

No. 5784 Mis

~~Order~~
Endt R No. 1441 d/29th July 97

Transferred to the P. W. Deptt
in continuation of Endt No 3902
27-7-97

1008
1009 } D
1010

Ag. Secy to Govt

Dated 26th July 1897

Received 2.8.97

Registered

Enclosures 1

Spare copies

To

The P. W. D. (with specimen hammer ~~will be forwarded on receipt~~)

The specimen hammer has not yet been recd — (Since recd)

RS
29-7-97

SUBJECT.

Forwarding to Government the Specimen Steel hammers received from Messrs C. A. R Iyer & Co, Trichinopoly and stating that the firm has 20000 wrought iron hammers ready for supply.

Papers
3 Aug 97

29/7

Await reply to telegrams 1008-1010

3 Aug 97

4/8/97

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

(Sett. 22—2,000—11-3 97.)

Proceedings of the Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

Dated 26: July 1897.

No. 5784 M.

READ the following letter from Messrs C. A. R. Ayer and Co. Trichinopoly dated 22nd July 1897 No. B. 7 $\frac{327}{L.\ 468}$.

Further to our letter no. B. 7 $\frac{318}{L\ 458}$ dated 16th July 1897, we have the honor to send per Rail to day a sample of a 2 lb steel hammer, as directed in the Board's Proceedings Mis No. 5328 dated July 14th 1897, and hope this and the other two sent already would give

give you entire satisfaction.

Anxiously awaiting to receive your orders, with a determination to execute them in the most punctual and advantageous manner in our power,

Resolution

The specimen steel hammer received from Messrs. C. A. R Ayer and Co. of Trichinopoly, will be forwarded to Government in Continuation of Board's Proceedings No. 5622 dated 21st July 1897.

C. No. 6312 9/97

= V.O. 3902 / 27.7.97.

2. The Board understands that the Firm has 20,000 wrought iron hammers ready, of the sort of which a sample has been already furnished, and which it offers to supply at $2\frac{3}{4}$ annas per lb.

True

(True Copy and Extract)

R. V. Srinivasier
Secretary.

To.

The Secretary to Government
Revenue Department
with a hammer.

Sent by parcel post

RSRJ 2617

8825(87)

Public Works (1897) Department.

CURRENT No. 7899

C.A.

Order

From The Rev: Dept.

No. 3902

Dated 27th July 1897
Received } 30-7-97
Registered
Enclosures ~~5+2. Specimen Hammers~~
Spare copies

SUBJECT.

Transferring to the P. W. D. certain papers re: Famine tools

3879
26-7-97
5999

59

30 Jul 97

BACK PAPERS.		FURTHER PAPERS.	
No.	Date.	No.	Date.
915 D	24.7.97		
876 D	21.7.97		
311 D	22-5-97		

(Sett. 22—2,000—11-3 97.)

REVENUE BOARD OFFICE MADRAS

Proceedings of the Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

Dated 9th July 1897.

No. 5099. Miscellaneous.

READ Government Order dated 25th May 1897 No. 2655. Miscellaneous:-

Read also telegram from the Government, Revenue Department dated 6th July 1897.-

Read also paras 18 & 25 of the note by the Chief Engineer submitted to Government with joint letter from Chief Engineer and 3rd member. Board of Revenue dated 3rd July 1897.

Had D. In the linked file

Resolution

With reference to the Government Order and telegram read above and to the joint reports recently submitted by its 3rd member and the Chief Engine the Board begs to state that it ha not yet heard from the agent South Indian Railway whether stone-breakin hammers

tenders passed in the Rev. Settl. not yet come to us. these came to us for C. i on 19.7.97 the Agent S.I.R. is unable to satisfy hammers can be manufactured at the Loco-work Shops, Negapatam. The Board is in Correspondence with a native Firm at Trichinopolly which states its ability to supply hammers in large numbers, but experience renders it doubtful whether it would be desirable to entrust a native Firm with a large urgent Contract. In Madras, there appears to be only one European Firm (Massey & Co) which would undertake the manufacture of "Several thousand" steel hammers at the rate of 100 per day. No Considerable supply of ready-made tools is available.

Cir 6 3/12/97

2. In the Boards opinion the present juncture is not a favourable one for revising the orders passed in 1893 regarding the Reserve of famine Tools to be permanently maintained for each District.

G.O 311 bW
2.12.93

The termination of the present Famine should be awaited before the Calculations of 1893 can be usefully revised.

Reserve stock of Famine tools 3,32,247
See G.O 311 bW
2.12.93

3. One thing is plain. Viz, that the entire reserve of famine Tools prescribed in 1893 (3,32,000) is not now sufficient even for the requirements of the four Ceded Districts, and that the unfavourable and critical state of the Current Season demands that a large extra supply of Tools should be got ready at once.

4. The Board would adopt the estimate of immediate requirements just submitted to Government by the Chief Engineer, and Concurred in by its Third Member.

The Chief Engineer has called for a return of the famine Tools now actually in use, and in stock, and

and when this is received, it will be seen what number of Tools are wanted to make up the estimate of immediate requirements contained in para 22 of the Chief Engineer's note.

5. Meanwhile it is certain that the number of hammers required, beyond what can be locally got, will far exceed one Lakh, and the Board concurs in the Chief Engineer's recommendation that an urgent indent for 100,000 Steel hammers should be sent to the Secretary of State

The Board is conscious that it is not its province to arrange for the supply of Tools, but it would venture to recommend also that the agent of the Madras Railway (who has undertaken to manufacture daily 800 wrought iron hammers, weighing 2½ lbs each, at Rupees 35 per 100.) be requested to manufacture

Statement under compilation
S.G.
3 Aug 97

90,000 indented for by the Rev. Dept. – vide telegram No. 25 d/ 21 July 97

manufacture 50,000 hammers at once. Meanwhile the Superintendent of the Department of Public Works Work-Shops should report what indents received from the affected District for Tools, remain to be complied with, and at what rate he is able to manufacture the Tools required. It will then be seen to what extent he is unable to meet the demand

6. If Government has not already the necessary information it is thought that the Secretary of State should also be asked to ascertain at what cost per thousand, and at what notice, a supply of pick-axes, mamooties, Sledge hammers and bill-hooks could be dispatched from England.

(True Extract)

R. V. Srinivasan
~~Famine~~ Secretary

To,
The Secretary to Government
Revenue Department

50,000 ordered by the Rev. Dept. – vide para 1 of G.O. 604 Rev d/ 21 July 97.

Inquiry being made as to whether the chilled iron hammers turned out by the workshops are suitable – vide telegram to III Circle sent by S.W. on 28 July 97

Information supplied to Rev. Dept. – vide tel. No. 915 D d/ 31 July 97

Stone breaking?

Ext. P.J. 9.7.

(Sett. 22—2,000—11-6-

Proceedings of the Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

Dated 9th July 1897.

No. 5102 Mis.

READ the following letter from Messrs. C. A. R. Aiyer and Company, — General agents and Contractors dated 6th July 1897, No. F. 286/L 422

We have the honour to inform you that we understand that the Government is likely to want Stone breaking hammers weighing 2 to 3 lbs for famine relief works. If this be the case we shall feel highly obliged by your placing an order with us for the same. We shall arrange to supply any amount of this hammer at the

rate

rate of 6 annas per lb or perhaps cheaper delivered at the place desired by you.

Awaiting your valuable commands—

Resolution

Messrs. C. A. R. Aiyar and Company are requested to state whether they contemplate making the hammers of steel. Wrought iron hammers of 2½ lbs are locally available at Rs. 35— a hundred.

Messrs. C. A. R. Aiyar and Company are requested to furnish samples of a 2 lb and a 2½ lb hammer, and to state what is the maximum number they can undertake to turn out per day, and within what time of receipt of order the supply could begin.

True

(True copy and extract)

(Signed) R. V. Srinivasiar

~~[illegible]~~ Secretary

To

Messrs. C. A. R. Aiyar and Company

(True copy)

R. V. Srinivasiar
Secretary

Snd KHS
22/7

(Sett. 22—2,000—11-3 97.)

REVENUE BOARD OFFICE MADRAS

Proceedings of the Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

Dated 14th July 1897.

No. 5328 mis.

READ the following letter from Messrs. C. A. R. Ayer and Company, dated 13th July 1897, No. $\frac{303}{2444}$ B.J.

We have the honour to acknowledge the receipt of Board's Proceedings No. 5102 dated 9th July 1897 — replying have the honour to state that we shall be glad to supply the hammers at the following× rates. We shall also be able to deliver between 800 to 1,000 hammers per week immediately on receipt of order,

Meantime ——

× Steel hammers at Rs 0-8-0 per ℔
Steel faced do Rs 0-6-0 per ℔
Malleable Iron do Rs 35-0-0 per 100
or at annas 3 per ℔

Resol

Resolution.

Messrs. C. A. R. Ayer and Company are requested to furnish a sample of a two-pound hammer of each of the three sorts specified. The eye for the handle should be about one inch long by $\frac{3}{4}$ inch broad.

(True Copy and extract)

(Signed) R. V. Srinivasier
Secretary

To Messrs. C. A. R. Ayer and Company.

(True copy)

R. V. Srinivasier
Secretary

Ed WKB
22/7

(Sett. 22—2,000—11-8-

Proceedings of the Board of Revenue
(Revenue Settlement, Land Records and Agriculture),

Dated 21st July 1897.
No. 5622 Mis.

Read again Board's Proceedings dated 9th July 1897, No. 5102 Mis.

Read again Board's Proceedings dated 14th July 1897, No. 5328 Mis.

Read also the following letter from Messrs. C. A. R. Ayer and Company, Hardware Merchants, dated 15th July 1897, No. B.7 312/2452

In continuation of our letter of yesterday's date, we have the honour to state that we can deliver and turn out at the rate of 100 per diem all Steel Stone breaking hammers with hardened faces to commence one week after receipt of orders.

We are sending you samples of a 2 lb and a 2½ lbs hammer and trust it will give you satisfaction but in the meanwhile you will be good enough not to order from anywhere else.

Awaiting your valuable commands—

Read also the following letter from Messrs. C. A. R. Ayer and Company, Hardware Merchants, dated 16th July 1897, No. B.7 $\frac{318}{L\ 458}$

Replying to the Revenue Board Proceedings No. Mis. 5328 of 14th instant, we have the honour to advise despatch of a Parcel by Rail containing two Sample Stone breaker's Hammers, one of malliable iron weighing 2 lbs and the other Steel-faced weighing 2½ lbs. As for the

Steel

Steel hammer, the Sample will go very shortly, but in the meanwhile we are prepared to make any hammers Steel or iron as per sample and design desired by the Board.

Awaiting your commands and in the hope that this may lead to permanent correspondence to our mutual Satisfaction—

Resolution

Submitted to Government in continuation of Board's Proceedings No. 5099 Mis dated 9th July 1897. The Native Firm at Trichinopoly referred to in para 1 of the Proceedings undertakes to supply hammers at the rate of 100 per day and at the prices mentioned below.

Steel hammers, at 8 annas per pound
Steel faced hammers at 6 annas per pound
Malleable Iron at 3 annas per pound
or Rs 35 per 100 hammers—

Samples

Samples of the two latter description of the hammer manufactured by the Firm are forwarded for inspection.

(True copy and extract)

R.V. Srinivasan
Secretary.

To

The Secretary to Government
Revenue Department.

Recd KHB
22/7

PWS. 4
78 22/87

Notes by Honourable Members.

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With regard to hammers I can add nothing to my note on the letters from Mr. W & Col. C: I don't think inquiries can be made from the Secretary of State as to the cost of mamooties &c., till we have decided what pattern shall be adopted, but the C.E. might be consulted about this.

(Intld) J.G.
14/7/97.

Presumably pickaxes, mamooties &c. are regularly imported from England by the P.W.D., which must know perfectly well what such articles cost.

(Intld.) H.W.B.
15/7/97.

(Intld.). A.E.H.
18/7/97.

OWS.5
2859/57

$\frac{}{16}$ 2,000—25-5-97.

REVENUE DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following:-----

1. Proceedings of the Board of Revenue, Rev. Sett. &c., dated 9th July 1897, No. 5099 Mis., and No. 5622 Mis., d/ 21st July 1897.

2. Office Note from the P. W. Dept., No. 915 D., dated 24th July 1897.

Order thereon, No. 3902, dated 27th July 1897.

Transferred to the Public Works Department with reference to its Office Note No. 311 D., dated 22nd May 1897.

(True Extract)

Ag. Secretary to Govt.

To

The Public Works Department,
with two specimen of stone breaking hammers
and with cop~~ies~~y of H.Ms' Notes.

No. 311 D

Gobernment of Madras.

PUBLIC WORKS DEPARTMENT.

Ootacamund
~~Madras~~, 22 May 1897.

OFFICE NOTE.

From

The Secretary to Government,
P. W. Department.

To

The Secretary to Government,
Revenue Department.

In G. O. 3116 W. dated 2nd December 1893, the Board of Revenue laid down a scale of tools that should be kept in stock in the event of famine, and that stock has been maintained and is in existence as certified to by the Suptg. Engineers of the several Circles. From my experience of the scarcity up to date and the number of coolies that are attracted to the works by the liberal way they are ~~hmaa~~ treated, I have grave doubts if the scale laid down is sufficient should there be a failure of the S. W. monsoon, and I think it would be well if the Board of Revenue were to consider the matter.

22/5/97

W.

after issue

(48—1,000—17-12-95.)

Despd 22/5/97